

# RECORD

136

F. R. Forberg  
Collection Book  
# 17

beginning #26154

ending # 26789

### Collection has held more people

ST. 8A

## Collection and Field Note Book

No. 17

(Aug. 6, 1946 - Aug. 24, 1946)

(26154 - 26789)

CAROLINE ISLANDS

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\* \* \*

Descriptive passages  
typed for files 1974  
B. Decker

1st P. sp. =

*Pandanus carolinianus*

2nd. *Pand. odoratissimus*, var. *novoguineensis*  
(Mat.) Med.

*Digitaria microbachee* (Taylor 1096)

*Oplismenus* - *Thunberg* (Kwaj.)  
no sp. from Majuro.

*Setaria* sp. = *verticillata*

*Fimbristylis annua* = *cymosa*

*Achyranthes canescens* (Taylor 1166)

*Portulaca quadrifida* = *samoensis* V. R.

*Canavalia microcarpa* - doubtful

*Dolichos lablab* - *Phaseolus lunatus*?

*Allophylus timorensis* (not terraced)

*Dodonaea viscosa* (Taylor 1072, 1095, 1138)

~~Allophylus~~  
~~Notopanax~~ *scutellariae* (not *gulfoylei*  
*notopanax* one leaflet?)

B

Terminalia litoralis Leem.  
not catappa

1st P. sp. -

*Pandanus carolinianus*

mb. *Pand. odoratissimus* var. *novoguineensis*  
(Maj.) Med.

*Digitaria microbache* (Taylor 1096)

*Oplismenus* - *Thunberg* (Kwaj.)  
no sp. from Majuro.

*Setaria* sp. - *verticillata*

*Fimbristylis annua* - *cymosa*

*Ashbyranthes canescens* (Taylor 1100)

*Portulaca quadrifida* - *samoensis* V.R.

*Canavalia microcarpa* - doubtful

*Solidago lablab* - *Phaseolus lunatus*?

*Allophylus timorensis* (not tenuatus)

*Dodonaea viscosa* (Taylor 1072, 1095, 1138)

~~Pithecellobium~~ *Nothopanax sentellarii* (not quelpoyae)  
*nothopanax* (one leaflet?)

F. R. Forberg  
Collection Book  
#17

beginning #26154

ending # 26789



PIONEERS SINCE 1831

Miniature  
Account Book  
No. S 136

UNIT RULED

Journal . . . . .  
Cash Book . . . . .  
Record (29 Lines) . .  
Ledger, Double Entry  
Ledger, Single Entry

Made in 200 and 300 Pages

Made in U.S.A.

TO REORDER, SPECIFY NUMBER,  
RULING AND THICKNESS INDICATED  
ON BACKBONE OF THIS BOOK.

1

ni

el

ni

"

Aug. 6 - Mohiringatua  
Islet

flat coral sand and gravel,  
covered by coconut planting,  
some breadfruit.

26154. *Premna integrifolia* R. Br.  
<sup>sturifolia</sup> common everywhere

55. *Artocarpus altilis* (Park.) Forst.  
common in woods

56. *Sophora tomentosa*  
very local

Aug. 6 - Masakromani Islet\*  
flat coral gravel, planted  
to coconuts, with moist  
depressions here and there

57. *Ochracea odoratus* (Rif.) Merr.  
~~spp.~~ rare, one seen.

58. *Binguiera conjugata*  
rare in depressions

59. *Ficus prolixa*  
rare, in shade.

tree 5 m. tall, (others  
up to 10 m.); flowers  
green, aromatic; fruit  
black when ripe. "vanavani"

tree 10 m. tall, others  
seen 30 m. tall and  
3-4 m. through buttressed  
trunks. Fruit eaten.

Wood used for many  
purposes. "kuri"  
slender tree 7 m. tall;  
flowers yellow. "hakapini"

small tree 4 m. tall,  
sterile, leaves leathery. "voi".  
small tree 4 m. tall,  
calyx and hypanthium  
bright yellowish red,  
"tonga".

small banyan, this specimen  
with young leaves, sterile. "ava"

1946 Caroline Is.

26160. ~~Allophylus~~ *timorensis*  
rare, in shade61. *Tacca leontopetaloides*  
rare here, very common  
on other islets, growing  
in shade, also seen  
to very edge of beach.62. *Soulamea amara*  
common locally near outer  
beach

B

Aug. 6 Simukutai Islet  
planted to coconuts, little  
undergrowth.63. *Pteris*  
occasional in woods  
64. *Polyodium scolopendria*  
very common, on ground and  
on ~~tree~~ trunks of trees  
this on log in deep forest.65. *Asplenium nidus*  
common on ground and  
occasional on tree trunks66. *Vittaria*  
occasional on tree trunks67. *Pisonia grandis*  
occasional to rare in forest

Nukuoro

small tree 4 m. tall,  
branches drooping; flowers  
whitish, scarce. "tarahari"  
erect herb; "pie"  
tuber eaten.small tree 4-5 m. tall,  
branches erect, flowers  
whitish. "hakapini."short erect rhizome  
"manumangamanga"  
rhizome creeping,  
fronds erect "maire"  
(without male ova)rosette of ascending  
fronds. "Kankatala"  
fronds pendentslender tree 3 m. tall,  
sterile "pulka".

26163. *Hibiscus tiliaceus*  
common in forest

69. *Cyrtosperma charantia* <sup>merkusii (Hassk.) Schott</sup> <sub>det. D.H. Nicolson  
6/1948</sub>  
cultivated in muck-filled excavations, small area here, great area on Nukoro Islet.

70. *Pipturus argenteus*  
common in forest

71. *Clerodendron inerme*  
occasional

72. *Nephrolepis*  
common almost everywhere

73. *Morinda citrifolia*  
common everywhere

74. *Barringtonia asiatica*  
a few seedlings here on upper edge of outer beach, trees seen in village on Nukoro Islet.

75. *Calophyllum inophyllum*  
common, especially along outer beach

slender twisted tree 10 m. tall, sterile, "koe'an".

acaulicent, leaves up to 3 m. tall, ~~sterile~~ very slightly prickly "tan kini" or "pukaka" staple food for inhabitants.

shrub 3 m. tall (others larger), ripe fruit white, fleshy "oronga" extensive sprawling shrub; flowers white buds purplish tipped, stamens and style maroon-purple "manumara".

rhizome short, erect, stoloniferous, fronds erect. "lube".

this plant young, a shrub 1.5 m. tall, others trees up to 12 m. tall. "pukaria" seedlings "kavausu".

tree 10 m. tall, sterile "hetan"

26176. *Polypodium scolopendrium*  
on log in open at top of beach

77. *Pemphis acidula*  
large thicket on outer beach,  
seen also on passage beach.

78. *Guettarda speciosa*  
common, especially along  
outer beach

79. *Baccharis frutescens*  
fringing outer beach

80. *Crinum*  
planted around small cemetery

81. *Hernandia ovigera*  
common along beaches

82. *Messerschmidia argentea*  
common along beaches

stem  
7 dm.  
tall

rhizome prostrate, creeping,  
fronds erect. "maire"  
(without male odor)

tree 7 m. tall; flowers  
white. "ngie".

tree 6 m. tall, flowers  
white "puā"

bush 1 m. tall, often  
seen up to 3 m., flowers  
white "mann kaparang"  
rosette of leaves 1 m. long,  
peduncle up to 1.5 m.,  
orange, flowers  
red-purple without,  
pinkish within,  
slamens and style maroon-  
purple, ~~leaves~~ "kiep"  
large rounded tree,  
leaves somewhat fleshy,  
glossy above; fruiting  
perigone white, fleshy,  
inflated, opening round,  
plugged by end of fruit.  
"pingiping"

tree 5 m. tall; leaves  
fleshy, silvery green,  
flowers white "manukriman"

26183. *Lepturus repens*

dominant in grassy areas in open and thin wood, tufts sending out runners at base "hei"

Aug. 6 Nukuoro (Matakena)  
Islet

Planted to coconuts, lagoon side occupied by village, center by great *Cyrtosperma* patches, outer side by thickets

84. *Triumfetta procumbens*  
common near outer beach

prostrate with ascending branches, flowers yellow "huatoro"

85. *Musa paradisiaca*  
~~spicatum~~  
occasional, both on dry land and in much of *Cyrtosperma* patches

plant 3 m. tall "ahuki"

86. *Hedychium coronarium*  
planted, both on dry land and in much.

herb 0.7 m. tall. "sinsia"

87. *Vitex* <sup>probably</sup>  
~~rare~~ <sup>probably</sup> planted, around depressions

slender bushy tree, <sup>5 m. tall</sup>, flowers purple, fruit green "tasile"

88. *Alocasia macrorhiza*  
fairly common, probably planted, on dry land.

leaves up to 2 m. tall.  
"ngau ngau"

89. *Bryophyllum calycinum*  
rare, ~~common~~ <sup>small patches</sup> orally

eat, fleshy, sterile

26190. *Lida cordifolia* fallax Wall.  
rare, in cemetery, probably  
planted

91. *Codiaeum variegatum*  
rare, planted in cemetery

92. *Cycas circinalis*  
rare, planted

93. *Adenanthera pavonina*  
rare, probably planted,  
in wet depression

94. *Bauhinia*  
planted in doorway, one seen.

95. *Hibiscus* (double mutant, probably  
of *H. rosa-sinensis*)

96. *Ocimum sanctum* L.  
rare, planted

97. *Acrostichum aureum*  
rare, no plant seen  
in wet depression with  
a single mangrove,  
in edge of village

98. *Plumeria acutifolia* subsp.  
cultivated in village

sterile seedling  
"Keau"

shrub 1 m. tall, leaves  
red and green; sterile  
"puringong" (several  
other forms seen)  
trunk 2 m. tall  
"manuatapapo"  
tree very chlorotic  
and unhealthy looking

small tree 4 m. tall,  
very chlorotic and  
unhealthy looking, sterile.  
"temanummoi"

shrub 3 m. tall,  
flowers red. "noz"  
very aromatic herb,  
flowers whitish. "aroaki"  
large clump

shrub 2 m. tall, very  
lactiferous, flowers  
white and yellow.

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26199. *Polyscias fruticosa*  
planted as hedge around  
cemetery

26200. *Nerium* <sup>Lychnicium</sup> ~~Leander~~ Mill.

occasional, cultivated

01. *Hymenocallis littoralis*  
commonly planted

02. *Graptophyllum pictum*  
~~was~~ planted in dooryard

03. *Fagraea berteriana* var. *sin* (G. & B.) Foh.  
planted in dooryard, rare

04. *Ixora caroliniensis* Hes. *casei* Hance  
planted in dooryard

05. *Polyscias scutellaria*  
planted in dooryard

06. *Terminalia catappa* L.  
edge of village

07. *Crinum*  
planted in dooryard

08. *Asclepias curassavica*  
planted around graves

Nukuoro

bush 1 m. tall, orange  
erect. "mandauriki":  
"ur"

shrub 1 m. tall, others  
taller, all seen sterile  
all seen sterile

leaves green, variegated  
with large irregular  
white center, patty,  
flowers purple.

small tree, bud only  
"pua"

shrub 4 m. tall,  
flowers orange red to  
scarlet on same bush,  
leaves very chlorotic  
"kaitio"

sterile shrub 2 m. tall

one unhealthy looking  
tree seen, sterile "puarakan":

rosette of long leaves,  
peduncle green, 1 m. tall  
flowers white with  
purple stamens + style  
erect herb, m. tall,  
flowers with corolla red,  
corona orange.

15

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26209. *Colocasia esculenta*  
planted on dry ground  
(also seen in muck)

10. *Zephyranthes rosea*  
planted in door yards

11. *Saccharum officinarum*  
planted in dooryard  
(also planted in quantity  
in muck in *Cyrtosperma*  
patches)

12. *Capricium frutescens*  
planted in dooryard

13. *Thespesia populnea*  
occasional around  
*Cyrtosperma* patches

14. *Citrus aurantiifolia*  
one tree seen, planted in village

15. *Ceiba pentandra*  
~~spotted~~ one fallen tree seen  
in village

16. *Pseuderanthemum eldorado*

17. *Thuidium Ectopothecium cyathodes*  
on ground under coconut trees

18. *Leucophyllum glauculum*  
on bases of coconut trees,  
abundant

Nukoro 17

acaulicent, leaves  
dull, plant sterile,  
"taro", leaves "ran taro"  
corn eater

caespitose, flowers w/ pink  
sterile grass 2 m.  
tall. "taro"

shrub 1 m. tall,  
fls. greenish white,  
fruit scarlet.

tree 8 m. tall "miso".

tree 4 m. tall, sterile

sprouts from fallen  
tree trunks.

shrub 3 m. tall, leaves  
green, flowers white  
with red-purple  
spots near throat  
forming a carpet

cushions, light green

26219. *Trichomanes minutum*  
rare, <sup>seen</sup> ~~on~~ <sup>trunk</sup> of one tree only

20. *Pandanus tectorius* var.  
common, especially toward  
~~near~~ outer beach

what seems to be  
random variation in  
leaf length, thickness  
of stem, size of  
fruiting head. I could  
see no distinction into  
definite varieties but  
the boys with me had  
no hesitation in calling  
this specimen "hara  
motumotu" which  
was confirmed by  
various bystanders.

Time was not available  
to go from tree to tree  
with informants and  
find out about them.

tree 5 m. tall, others taller  
fruit not mature.  
"tehara" tree; "rauhara"  
leaves; "hui hara" fruit;  
"labo hara" roots.  
fruit eaten, leaves  
woven into mats, etc.  
said to be 7 kinds, one  
of which, "hara singano"  
is the staminate tree.  
The other 6 are  
"hara mai songa"  
"hara motumotu"  
"hara taki"  
"hara adeo"  
"hara vani" The last  
has fruits that are rather  
poor for eating and are  
only eaten in time of  
famine. "hara singano"  
is said to be best for  
matting, but this  
is doubtless not true,  
as it is the male for  
all kinds.

Examination of  
many trees shows

221. *Colens scutellaroides* (L.) Benth.  
fair sized patch in  
rather open part of  
coconut planting  
probably established after  
cultivation

222. *Colens scutellaroides* (L.) Benth  
with # 221

223. *Colens scutellaroides* (L.) Benth.  
with # 221

24. *Hyndelia nodiflora*  
small patch near trail

25. *Ochnosia oppositifolia*  
single tree seen in woods

26. *Carica papaya*  
rare in woods

leaves green, flowers  
blue-violet, plant  
spicy-aromatic.  
This form has become  
well established.  
It has apparently reverted  
to colored forms in  
2 cases (the following  
2 numbers) where ~~single~~  
plants occurred in  
the patch with colored leaves,  
sterile plant. (with # 221)  
with leaves bronze  
purple above, with  
green margin and under  
side. sterile.

sterile plant, 2 shoots  
connected by stolon;  
leaves deep maroon-  
purple on both sides.  
flowers yellow.

tree 10 m tall, lactiferous.  
fruits in pairs (old  
ones picked up on  
ground)

single stem 3 m tall.  
flowers cream-white  
"mami"

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26228. ~~Asplenium~~ *Athyrium*  
very local in woods

27. *Asplenium* <sup>congovianum</sup> ~~houttei~~  
common locally

28. *Inocarpus fragiferus* (Park.) Forb.  
rare, only very few trees  
seen in woods, possibly planted

29. *Cyperus stupifer javanicus*  
one small patch seen  
in low wet place

30. *Paspalum conjugatum*  
common locally

31. *Polyscias*  
planted, rare.

32. *Pandanus fragrans*  
occasional in forest

33. *Ipomoea* <sup>tenua</sup> ~~alba~~  
uncommon, toward outer  
beach

34. *Coelococcus amicarum*  
one tree seen behind village

Melauo

23

rhizome short, erect  
"lube"  
forming a thin  
carpet on ground,  
leaves wavy.  
"heri rau riki"  
tree 8 m. tall, sterile, but  
old seeds on ground  
mostly germinated  
"maruf" "maruf": seeds eaten.  
caespitose, leaves grey  
"heri pata"

~~✓~~ rooting at nodes,  
scapes erect. "heri" (evidently  
a general name for grass)  
shrub 2 m. tall  
"manurau riki"  
tree 12 m. tall, <sup>rapit</sup> fruits  
on ground, not certain  
which of several identical  
trees they are from,  
"palaia" ~~ff~~ seed eaten.  
sterile vines  
"hue"

tree 12-15 m. tall  
specimens from dead leaves  
and fruit beneath.

2237. *Erythrina*one tree seen in woods  
behind village38. *Pandanus*

All of the islets of Nukurons are well planted to coconuts. Breadfruit trees are scattered through the coconut forest and many of them tower above the coconuts, perhaps even to 30 or 35 m. Their buttressed trunks are as much as 3-4 m. through near the base. So far as could be ascertained there are no open sandy or gravelly places above tide level. The outer beaches are lined with *Messerschmidia*, *Hernandia*, *Guettarda*, *Pandanus*, and locally, *Pemphis*. Outside

Islets of Nukuoro Atoll  
(south to north)

Mokerekere

Itaha

Oromang (Oromange)

Teahua (Deahna)

Mokerekereioto (Motu Iloto) (Motsuiroto) ilo.

Kaushima (Kaujima) (Kauzema)

--Nukuoro Passage--

Sinukutai (Shenukdei) (Suchienukudei)

Mohiringatua

Masakomani

Nukuoro or Matakena (Nugoro)

Takamanga (Takonran)

Lati

Temotu

Haisisi

Pa'kau

Sungaauroho (Shugnaurohu)

Tuila (Tsuirra)

Hatuakanai

Paraiashi

Motuoveka

Paunga

Ahuroaroa

Motutuka

Ahuetoru

Motuovai (Motu Wei)

Teahu

Teahu three with same name

Teahu

Sapini (Sapinimotok) (Motsuito)

Motupoatai (Motu Patai)

Motuitua (Motu Ituo)

Ahuiroto

Tahangaroa (Tahangoro)

Tahangatapu (Tahangatabu)

Ahurekareka

Masakuman

Niurikita

Ahuraanui (Arukanui)

Torungahari

Tarakaiavau

Motuia

Motunui (Motonui)

Namuirotoa

Hawoshika

Kapinivere

Tavainamu

Teungakerekere (Tonga Kerikeri)

26239.

1103A *Microtus* to *aleuticus*  
(*fuscus* or *fuscus*)

38 1.

be with

tree 20 m. tall,  
leaves chlorotic,  
specimen from shaded  
lowest twig, sterile.  
"muntavaki"

staminate inflorescence  
brought in by boy  
to illustrate "bara singans"  
parts white with  
green tips, boat shaped.

this is a fringe of beachola. The inner beaches have some *Messerschmidia*, *Guettarda*, occasional *Calophyllum*, *Hernandia*, *Landanus* and *Barringtonia*.

The interior of only 5 islets was at all examined. Hozaka visited Kaushima (Kaujima). I covered fairly well Simumutai, Mohiringatu, Masalsomani and <sup>the</sup> south half of Nakuro (Mitabera).

There is little under-growth on any of these, possibly because of 'clearing.' Where the tree

cover is thin lepturus  
lepturus covers the ground.  
In denser places either  
weeds are common, as  
on Nakuno, or Oplismenus  
(also on Nakuno), or the  
ground is either bare,  
sometimes mossy, or  
ferns form a thin cover.

~~Trees~~ Trees growing under  
the coconuts are Premna,  
Morinda, Pandanus,  
Hibiscus tiliaceus, with  
a few others more rare.

Depressions here and  
there have a ~~no~~ Bruguieras  
or two, and in one, a  
clump of Acrostichum  
asplenium.

In artificial depressions  
Cyrtosperma is  
raised, along with  
some Colocasia and  
with ~~Kaua~~ Saccharum.  
One of these patches,  
on Nakuno Islet back  
of the village is many  
acres in extent. They  
are excavated, the earth

piled along side.  
Coconut husks and  
other organic matter  
is thrown in and  
rotted until a muck  
is formed. All  
waste vegetable  
matter is saved for  
these. The water level  
is slightly affected  
by the tides.

words:

kales - chicken

rapoto - white eel

karapsi - black sea cucumber

nui - coconut tree

huame - full grown  
coconut (drinking)

matu - ripe coconut

lau nui - coconut leaves

Colonia  
Aug. 8 - Colony, Ponape  
specimens gathered locally  
~~to illustrate identify~~  
by natives to identify  
~~best~~ Bascom's native  
names.

26239 *Ipomoea*

40 *Ficus tinctoria*

41 *Caesalpinia pulcherrima*  
(L.) SW.

42 *Millettia*

43 *Terminalia catappa*

44 *Morinda citrifolia*

45 *Pandanus*

roots used for fiber for shirts

46 *Ipomoea aquatica*

46 *Pandanus*

"omp" (Bascom 42A) tips eaten

"ni:n" (Bascom 45) fruit eaten  
"semutha" (Bascom 40)  
beans eaten

"kISETIKImai" (Bascom 44)  
fruit eaten

"thipwOpw" (Bascom 47)  
nut eaten

"we:ipwul" (Bascom 28)  
fruit eaten

"kIpar" (Bascom 25)

( says this tree  
was brought from  
Nukoro and is the  
haramotumota of  
Nukoro. Fruits  
said to be excellent  
to eat.

"Kipar" variety "Kipar En wal"  
said to be native in Ponape,  
but to correspond with the  
"haravan" of Nukoro; fruits  
not very good, seldom eaten.

"kipar anai"  
var.

Key to Bascom's system of phonetic writing

a: = long a

a = medium a

ə = very short a

χ = a in but

E = e in bet

I = i in hit

O = o in German Gott

a, e, i, o, u have continental values.

34 1946 Caroline Is.

Aug. 3 Colonia, Nöt, Ponape  
26247 *Sporonea gracilis*  
along pier at water's edge

Aug. 3 Palikir, Ponape

disease on *Citrus aurantiifolia*  
coll. by Richard Oakesley

Aug. 3 Nanipil, lower  
part of Tawenjokola River,  
Nöt, Ponape

lower slopes just above  
river, thickets of  
principally *Hibiscus*  
*tiliaceus* with open  
places filled with *Ischaemum*  
*Fimbristylis*

48 *Fimbristylis*  
in road

49 *Ischaemum*  
dominant grass in  
open places, very abundant

50 *Pipturus*  
in ~~moist~~<sup>most</sup> thickets

51 *Pipturus*  
in moist thickets

Ponape

35

vine, flowers purple,  
deeper in center.  
"omp" or "emp" (Nöt).

small tufts.

forming a mat up to  
0.7 m. deep.

shrub 1.5 m. tall,  
stems and petioles red,  
leaves bullate above,  
venulose below. "Kariari"  
vine climbing in trees,  
leaves more or less smooth

26252 *Jussiaea*  
open place

53 *Zygophorium* ~~anthosoma~~  
open place

*Saccharum spontaneum* L.

54 ~~Misanthus~~  
common in lowlands

Aug. 3 Colonia, Mot., Ponape

55 *Cynometra*  
~~taras~~ lowland thickets  
near river

herb 1.5 m. tall, flowers  
yellow, petals fugaceous  
"Delenrank"

sterile; leaves dull  
above, very glaucous  
beneath, petiole at an  
angle with blade;  
"sana" said to have  
brought from Hawaii by  
Japanese and also called  
Hawaiian taro.

(Bascom T15) Large clumps,  
canes up to ~~4~~ 4 m. tall,  
flowering canes had  
already lost leaf  
blades, leafy canes  
sterile "alek" or "allek"  
bearing a flowering stalk  
called "liatin alek".

tree 8 m. tall  
"Kamman" (Bascom T12)  
wood not used for lumber  
but branches used for  
handles, etc.

July 3 Nist District  
 Ponape, lower valley  
 of Lowerngobsola River  
 flat bottom of  
 river valley has  
 secondary forest patches  
 and thickets, principally  
 of *Hibiscus tiliaceus*,  
 which runs well  
 up the slopes at the  
 sides. These alternate  
 with open grassy  
 patches of *Ischaemum*,  
 forming a thick mat  
 in places 1 m. deep.  
 Small patches of  
*Miscanthus* sp.

occur commonly, as  
 well as patches of a  
 reed ( ). *Pennisetum*  
*purpureum* is occasional.

Scattered tall trees  
 are here and there,  
 evidently remnants  
 of the original forest.

Most look like  
~~camponotus~~ *Dendrocyas*, but were  
 not examined.

On the upper slopes  
 the original forest  
 more and more  
 persists, the higher  
 one goes.

Around the bay  
 in the vicinity of  
 Colonia the lower  
 slopes are covered  
 by coconuts with,  
 at least in places,  
 breadfruits scattered  
 among them.

Open fields of  
*Ischaemum* with  
 thickets and ravines  
 full of trees. *Hibiscus*  
*tiliaceus* conspicuous  
 everywhere, but  
 occasional patches  
 of ~~primary~~ *Ixora*  
 is common in the  
 ravines and thickets.

Aug. 9 Dam pond above  
Manihi, Nöt Dist.  
(brought by R.B. Black)

20256 *Nymphaea*  
in water

57 *Cichorium intybus*  
floating

Experiment station,

Aug. 9, Colonia, Am Nöt,  
Pohnape

cultivated ground of  
~~around~~ experiment  
station

58 *Borreria*  
weed in orchard

59 *Averrhoa carambola*  
orchard tree

60 *Eugenia caryophyllata*  
orchard tree

61 *Psidium*  
orchard tree

large tree with  
red fruit  
pink aromatic fruit

63 *Acharia*  
orchard tree

leaves purplish green  
flowers white.

— flower lavender, upper  
petal purple with  
yellow spot in center.  
petiole scarcely or  
not swollen.

plant erect; flowers  
lavender, 4-merous.

panicle dark red,  
calyx bright red,  
petals purple

small tree, aromatic  
when broken with  
strong clove scent

ripe fruit greenish  
yellow, sweet.

fruit brown, not quite  
ripe, full of a very  
sticky latex.

Aug. 9 -

hill between Nanipem  
and Palikeropen hills completely  
dominated by Gleichenia,  
with trees in ravines26264 *Fagraea berteriana*, var. *sain* (G. B.) Bascom  
tree in ravine

"pu" or "sain" (Bascom T 37)

65 *Pennisetum purpureum*  
common in grassland  
below Gleichenia area

(Bascom T 159)

66 tree in deep ravine

67 *Jussiaea*  
along road68 *Borreria*  
roadside69 *Lantana camara*  
edge of ravine

(Bascom T 158a)

70 *Glechnum orientale* L.  
common in eroded places  
and cut bankstree 10 m. tall, flowers  
cream white, turning  
deep yellow, very  
fragrant, ripe fruit  
orange.clumps 3-4 m. tall.  
(imported by Japanese  
and planted on a large  
scale for paper making,  
a factory was established  
nearly.) "pohso"  
small tree; buds white."kanpap" (Bascom T 22)  
erect herb 1 m. tall  
"telunak"  
flowers white.shrub 1.5 m. tall,  
flowers yellow, turning  
deep rose. "tukasnewch"rhizome a small trunk  
about 3-4 m. tall.

"paipai aramas" (Bascom T 121)

44

1946 Caroline Is.

20271 Coleus

just outside edge of wood  
in deep Gleichenia72 Chrysopogon aciculatus  
in bare spots73 Ischaemum  
rare in spots where  
Gleichenia is thin or absent74 Scleria  
clumps here and there  
where Gleichenia is thin75 Miscanthus <sup>floridulus</sup> japonicus  
clumps on ridge  
"sapala" Bascom ~~T 116~~76 Pteris  
abundant in small  
burned area.77 Fimbristylis  
common in small  
area where Gleichenia  
is absent78 Premna thunbergia R. Br.  
occasional on ridge79 Zingiber zerumbet  
common along ridge

(Bascom 39e)

"ong en palaten Ponape")

45

Ponape

erect herb 1.5 m. tall,  
corolla lips purple,  
tub white. plant  
aromatic. "Karamath" <sup>Pometopodium</sup>  
creeping, scabre <sup>(Bascom</sup> <sub>T 55a)</sub>  
erect.clump 1.5 m. tall,  
"sapasap en mal" (Bascom T 18a)culms 2-3 m. tall,  
leafy even when  
panicle is old and shattered.  
rhizome shallowly  
buried, fronds erect.  
erect tufts.shrub 1.5 m. tall,  
ripe fruit black. "topuk"  
plant with strong  
ginger odor when broken,  
rhizome yellow when cut,  
inflorescence filled with  
clear aromatic mucilage,  
fruits green with red margin.

46

28-1946 Carolines I.s.

2730 *Glochidion*occasional on ridges  
and slopes81. *Commersonia bartramia*  
common in ravines  
and along roadsides82 *Eurya*  
common in ravines83 *Glochidion*  
occasional on ~~slopes~~84. *Paspalum orbiculare*  
common in open and thin  
places in *Gleichenia*85 *Pteris*  
occasional in thin place  
in *Gleichenia*, shaded  
by it.86 common, scattered on  
slopes, entering secondary  
forest.87 *Feigeria*  
common on slopes

88 one plant seen on slope (will 2086)

89 *Glochidion*  
on slope

Parape

47

shrub 1-1.5 m. tall;  
flowers yellow, fruit  
white.shrub up to 3-4 m.  
tall, flowers white.small tree 4-5 m.  
tall, leaves distichous,  
flowers white. "paapa"shrub, m. tall,  
flowers yellowish.  
culms erect.pinn. erect, rhizome  
buried.(Barcom<sup>44</sup>)shrub 1 m. tall (much  
taller when in forest),  
flowers bright rose  
pink. "kisitik mai" fruit eaten.  
clumps, mostly  
without fruit.shrub 0.5 m. tall,  
flowers white. "kisitik mai"  
fruit eaten.

shrub 1 m. tall.

20290 *Gleichenia linearis*  
dominant on slopes and  
ridges in open  
91 *Hypericum cernuum*  
common on slopes with  
*gleichenia*  
92 *Pilea obtusifolia* R. Br.  
occasional on slopes

same but in  
forest on slopes above  
~~secondary~~ primary  
forest but somewhat  
opened up near lower  
edges, there tangled  
with undergrowth

93 *Zingiber*  
rare in ravine in  
deep shade  
"ong en pala"  
(Bascom T94)

94 *Geocardinia herbacea*  
on bank along trail

95 *Ixora caroliniensis* Corse Hance  
rare in brush along trail

96 *Dysoxylum*  
rare in deep forest

"nativen mal" (Bascom T97)  
forming a continuous  
tangle, rhizome at  
ground surface.  
"katin mall" (Bascom T99)  
small shrub,  
ripe fruit black

tall forest largely  
made up of ~~secondary~~  
"ong" - sterile, looks like *Semicarpus*,  
and "lis" ( )

rhizome yellowish,  
whole plant with ginger  
odo when broken, inflorescences  
filled with clear  
aromatic mucilage.

rafts bronze-red.  
prostrate, fruit dull  
red. "Katin" (Bascom T29)  
shrub 1.5 m. tall,  
flowers vermillion.  
slender tree 5 m.  
tall, fruit immature  
"maraso" (Bascom T15)

26297 *Cyathea*  
very common

98 *Scleria*  
abundant along trail

99 one tree seen

26300 *Psilotum complanatum*  
epiphytic on tree trunk

01 *Hoya*  
climbing on tree trunk

02 *Procris pedunculata*  
epiphytic on tree trunk

03 *Trichomanes bipinnatum*  
epiphytic on tree trunk

04 *Carex*  
in ~~open~~ semi-open place

05 *Parinari glaberrima* Hassk.  
common tree (Bascom T 21)

06 *Adiantum*  
rare on forest floor  
on rocky slope

07 *Lentius tuber-regium* Fr.  
tuber embedded in  
rotting wood

trunk 2 m. tall (others  
seen up to 5 m.).  
specimen only of base,  
middle and tip of  
frond. "katai" (Bascom T 110)  
tangles 2 m. deep.

tree 1 1/2 m. tall, flowers  
white, petals lacerate.  
pendent, sides of  
stems smooth.  
vine, flowers dull  
yellow "teketek" (Bascom T 74)  
stem fleshy,  
pistillate flowers white.  
"pwaket" (Bascom T 56)

clump

"sapasap" (Bascom 118)  
tree up to 10 m. tall,  
fruit brown. "ais" oil from  
seed quick drying oil for canoes.

said to have been  
exported in large quantities  
by Japanese, reported to have  
been used medicinally, and  
for making face powder.  
"uselentong"

Aug. 10 - Colonia, near agricultural station  
marshy cane brake

20303 *Phragmites karka*  
abundant locally in marsh, forming small brake

09 *Rynchospora*  
edge of brake

09a *Ischaemum*

Aug. 10 - peninsula east of mouth of Townjebola River, Nöt, Ponape lower slopes just above bay

10 *Cyrtosperma*  
cultivated in marshes

11 *Cyrtosperma*  
cultivated in marshes

12 *Passiflora orbiculata*  
common along road

13 *Passiflora foetida* subsp. *hispida* (DC.) Killip  
common everywhere

canes ~~4~~<sup>3-4</sup> m. tall  
"lima"

petioles curiously cross mottled with bronze and pale green  
"mwong en nukus"  
no prickles. (Barcom 41)

petioles reddish toward base, somewhat prickly toward base  
"mwong en main" (Barcom 4d)

tufts, erect "van'ta"  
(Barcom T 89)

wine climbing in brush, flowers white, base of corona segments purple  
"pompom" fruit eaten.

54 1946 Caroline I.s.

26314 *Cyrtosperma*  
cultivated in marshes

15 *Colocasia esculenta*  
cultivated or spontaneous  
in edge of marsh  
(Bascom 5g)

16 *Xanthosoma*  
cultivated in yard  
(Bascom 5d)

17 *Alocasia macrorhiza*  
cultivated in yard  
(Bascom 27i)

18 *Piper methysticum*  
cultivated in yard  
(Bascom

19 *Colocasia esculenta*  
cultivated in yard in  
wetish place

Ponape

55

petioles faintly bronze  
toward base, with very  
few prickles "mwang en  
matik" (Bascom 4cc)

petioles purple toward  
top "sava en mwaramwai"  
corn eaten, flowers said  
to be used for garlands.

plant aranlescent,  
leaves up to 1.5 m. tall,  
blue-green above, very  
glaucous beneath,  
spathes erect, borne  
in a spiral series  
enclosed in bracts  
when very young,  
spathe pale green,  
flowers cream color,  
odor of stale chewing  
gum "sava en awai"

leaves ~~erect, bright~~  
green on both sides,  
"oth sapuker" stem eaten

~~shrub 1 m. tall~~  
"sawhaw" ~~the~~ roots used  
to make drink of same name.

petioles maroon purple,  
"sava waitata" or  
red taro. corn eaten

26320 *Colocasia esculenta*  
cultivated in yard

21 *Bambusa vulgaris* Schrad. ex Willd. var. McClure  
growing near dwellings  
(Bascom T147a)

22 *Pandanus*  
in thickets, shaded  
(Bascom T154)

23 *Dioscorea bulbifera*  
in thickets

24 *Derris elliptica*  
in thickets  
(Bascom T68a)

25 *Derris trifoliata*  
edge of mangrove swamp

26 *Clerodendron inerme*

petioles green (Bascom 52)  
"sava en kusai" corn eaten.  
close clump of culms  
about 10 m. tall, internodes very short.  
2 small sheaths from  
4th & 5th nodes, larger  
ones picked up on ground.  
no fertile branches seen.  
"pari en Sonape"  
a small, slender, bushy  
*Pandanus* that grows  
in thickets at low  
altitudes and is  
said never to fruit  
"mwatal"  
vine climbing in  
trees, tubers both  
underground and aerial.  
"palai" (Bascom 29a)  
vine-like, leaves  
glaucous beneath.  
"up bitik" roots  
used for fish poison.  
vine, sterile.  
"kan arai" not used  
for fish poison.  
sprawling shrub; flowers  
white with purple stamens  
and style. "ilaw" used for perfume.

26327 *Desmodium*  
along seashore

28 *Barringtonia asiatica*  
along seashore

29 *Wedelia biflora*  
along seashore

(Bascom T138)  
30 *Indigofera* <sup>spicata</sup> <sub>Forsk.</sub> *Endecaphylla*  
along seashore on road  
embankment.

Aug. 10 - vicinity of U,  
U District, north coast  
of Ponape  
coastal ~~strip~~ strip and  
edges of mangrove swamps

31 *Thespesia populnea*

32 *Gardenia jasminoides*  
cultivated in door-yard

33 *Curcuma*  
cultivated

(Bascom 39a)

shrub; leaves slightly  
glossous beneath;  
flowers white."

tree 10 m. tall; fruit  
square. "roi" said

sh poison  
n T131)

check herbarium  
coll.

(Bascom 124)

"kawtaw"

flowers  
esp maroon  
and  
(Bascom T130)

shrub 7 m. tall; flower  
white, very fragrant.

"yosef" sawi"

root deep orange red within,  
fragrant, used in food  
"ongetik"

Check Lonneström  
coll.

(Barrow 124)

"kawtaw"

26327 *Desmodium*  
along seashore

28 *Barringtonia asiatica*  
along seashore

29 *Wedelia bipinnata*  
along seashore

(Bascom T138)

30 *Indigofera spicata* <sup>Forsk.</sup>  
*endecaphylla*  
along seashore on road  
embankment.

Aug. 10 - vicinity of U,  
U District, north coast  
of Ponape

coastal ~~strip~~ strip and  
edges of mangrove swamps

31 *Thespesia populnea*

32 *Gardenia jasminoides*  
cultivated in door-yard

33 *Curcuma*  
cultivated

(Bascom 39a)

shrub; leaves slightly  
glaucous beneath;  
flowers white.

tree 10 m. tall; fruit  
square, "iri" said  
to be used for fish poison  
in Kity. (Bascom T131)

tangled herb up to  
1.5 m. tall, flowers  
yellow "ngkau"  
prostrate, extensive,  
flowers salmon pink,  
very rare.

tree 3 m. tall, flowers  
yellow with deep maroon  
center. "pore" wood  
used for canoes. (Bascom T130)

shrub 3 m. tall; flower  
white, very fragrant.  
"yosef" "sawoi"

root deep orange red within,  
fragrant, used in food  
"ongetik"

26334 ~~26~~ Hibiscus comosus  
weedy roadsides

35 Ipomoea pes-caprae  
roadsides along shore

36 Curcuma  
cultivated (Bascom 398)

37 Tencium  
about houses in wet places

38 Hedyotis coronarium  
very common in wet places  
(Bascom 399)

39 Claoxylon  
large tree in yard

40 Dioscorea  
cultivated

41 Dryopteris  
very common everywhere,  
making up a large part  
of the ground cover

42 Dioscorea alata  
cultivated in dry yard  
(Bascom 1a8)

43 Humata  
on tree trunk in mangrove swamp

(Bascom T33)

herb 1 m. tall t  
"kaanthi" or "matai"  
prostrate, extensive,  
flowers purple "sonsol"  
root bright deep yellow,  
used as dye "ongalap"  
sprawly herb up to  
1 m. long, flowers white  
"alis en kat"

herb 1 m. tall, flowers  
white with yellow  
splots, on large segment,  
very deliciously fragrant  
"sinse puetpuet"  
large tree. "kawye"  
(Bascom T16)

vine "kawatik en  
kapvalap" (Bascom 1b8)  
ponds erect.

vine, lower leaves  
alternate, upper opposite,  
base and summit of  
petiole orange-purple  
"kaapin panigan <sup>puetpuet</sup>"  
"mawathil eniak"  
(Bascom T101)

26344 *Vittaria*

on tree trunk in mangrove swamp

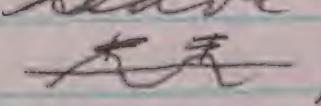
45 *Nephrolepis acutifolia* (Lam.) Christ  
hanging vertically  
from tree trunk in  
mangrove swamp46 *Canavalia cathartica* Thomas

edge of mangrove swamp

47 *Dioscorea esculenta* <sup>*numularia* Lam.</sup>  
thicket near dwellings  
wild48 *Dioscorea alata*wild in thicket near  
dwelling49 *Capicum frutescens*  
spontaneous about dwellings50 *Inocarpus fagiferus*  
near dwellings

(Bascom #6a)

(thick skinned var.)

51 *Antirrhinum*near dwelling, said to  
have been introduced by Japanesedet. <sup>1974</sup> Garrett  
fronds elongate (2-3 m.)  
pinnae early caducous  
"nathil" (Bascom T97)vine, roots a tangled  
mass of thickened curved  
roots, said to enter and  
leave the ground thus  
  
base of stem  
very prickly,  
"kapnair kapnias"  
tuber eaten. (Bascom 166)"kaapwalap"  
tubers eaten. (Bascom 162)shrub, flowers greenish white,  
ripe fruit red, very peppery.  
"sele" (Bascom 388)tree 12 m. tall, fruit on  
ground beneath (out of  
season now. "marap"  
seeds eaten baked.flowers deep violet,  
white spot on palate

26352 *Ipomoea*  
common generally

53 *Kleinia hospita*  
coastal flat (Bascom T39)

54 *Hibiscus tiliaceus*  
abundant everywhere  
(Bascom T14 a)

55 *Vitex negundo*  
rare along sea shore

56 *Curcuma*  
wild near dwellings  
(Bascom T95)

57 *Oximum*  
as planted near dwellings

58 *Gomphrena globosa*  
garden

59 *Gomphrena globosa*  
garden

60 *Dryopteris*  
road cut

61 *Bixa orellana*  
along road, planted

feature

A - for paddles, red  
very dark red  
(yellow) orange

B - produce roots  
leaf, tree with white  
wood

C - for fibre, boats, fishing  
candy, etc etc  
etc, Bushy, light  
white wood

tree  
red (T65)  
flowers  
in ant  
flowers  
maroon  
ear" a  
"

ll,  
when  
purple  
upper  
purple,  
ish  
g.  
" Bascom  
waxy, very, waxy  
deep magenta "pauerwaitata"  
made into garlands to  
be worn around hair  
bracts pink "kopunior"

bush 2 m. tall, flowers  
bright pink; red oil of  
seed used to color soup.

26352 Ipomoea  
con

53 Klein  
coa

54 Hibis  
abi

55 Vitex  
ra

56 Curc  
wil

57 Oxir  
ss p

58 Gomphrena globosa  
garden

59 Gomphrena globosa  
garden

60 Dryopteris  
road cut

61 Bixa orellana  
along road, planted

Penape

vine climbing tree  
flower purple  
"siksaam" (Baron 765)

tree 10 m. tall, flowers  
pink "kalau en ant"  
small tree, flowers  
yellow with maroon  
center. "pe'takai" a  
kind of "kalau"

shrub 2 m. tall,  
leaves aromatic when  
rubbed; flowers purple  
herb 1 m. tall, upper  
bracts rose-purple,  
flowers yellowish  
"aulöng"

aromatic herb  
"katharin" (Hasen  
bushy herb, bracts  
deep magenta "pawerwaitata"  
made into garlands to  
be worn around hair  
bracts pink "kopunior"

bush 2 m. tall, flowers  
bright pink; red oil of  
seed used to color soup.

1946 Caroline Is.

62 *Rhizophora apiculata* Bl.  
mangrove swamp

63 *Rhizophora mucronata* Banks  
mangrove swamp

64 *Bruguiera*  
mangrove swamp

65 *Davallia solida*  
on trunks of mangroves

66 *Cyperus stipaeus javanicus*  
on fallen log in mangrove  
swamp

67 *Crotalaria* <sup>mucronata</sup> <sub>desv.</sub> <sup>saltans</sup>  
roadside said  
to have been introduced  
by Germans to green manure  
coconut plantations.

*Great thickets of Biliens Biliens*

Coastal lowlands back of mangrove swamps are dominated by coconuts, but with much breadfruit, some *Inocarpus*, *Claoxylon*, and various other trees. *Coeloscyphus* common locally. Bananas are abundant. One

Ponape

small tree "ak elel"  
(Bascom T123 a)

small tree, leaves  
punctate beneath  
"akapa" (Bascom T123 a)

small tree; calyx and  
hypanthium red  
"son" a wind of "ak"  
ponds leathery T123 c

"ulungen liel" (Bascom  
"use" (Bascom T92) T53)

erect herb, m. tall,  
flowers yellow,  
banner with dark  
brown lines. "kaianos"  
"kaianos"

plant of *Musa fehi* seen.  
*Cyrtosperma* raised in  
marshes, along with  
some *Colocasia*! *Colocasia*,  
*Alocasia* and *Typhonium*  
in dooryards.

Wetish places are largely  
filled with *Hedychium coronarium*,  
*Dryopteris* *parasitica*, *Ischaemum*  
etc.

seen from the ocean  
the fore hills and lower  
main slopes are covered  
by coconut plantations  
Above these is usually a  
broken patchy zone,  
then the mountain forest  
on the steep slopes above.

Here and there on ridges  
are the so called "deserts"  
or "mal"; dominated by  
*Gleichenia*.

Aug. 11, Nammato Islet,  
Matalanin, Ponape  
sand flats and land built up of ~~soil~~  
broken coral by ancient  
inhabitants for a temple  
site. Temple walls  
of basalt columns  
stacked like cordwood.

74368 *Enthalus acroides*  
covering shallow lagoon  
bottom inside the  
islands.

68a *Thalassia testudinum*  
mixed with *enthalus* (74368)

69 *Somneratia caseolaris*  
common on sand flats

70 *Premna obtusifolia* R. Br.  
on temple platform

71 *Paspalum conjugatum*  
on temple platform

72 *Digitaria timorensis*  
on temple platform

73 *Phyllanthus amarus* Schum. & Th.  
var. *concolor* Steyermark  
N. B. L. Webster,  
on temple platform 1955

74 *Eragrostis amabilis*  
on temple platform

the whole islet held  
by a retaining wall  
of huge basalt blocks.  
Mangrove trees covering  
all except the temple  
platform and walls.  
Slight admixture of  
low island species.

spreading by rhizomes,  
leaves distichous, each  
edge with a heavy fiber.  
fruit ~~oblong~~ ovoid,  
terete. "cloth"

fibers used for small  
hand fish nets used by women.

spreading bushy tree,  
pneumatophores tall  
and sharply conical,  
"kawtaw" (Bascom T. 24).

bush 1.5 m. tall; flowers  
green "aw" wood used for drums.

rooting at nodes, culms  
erect. "ren wai"

spreading

erect. "limairpwong"  
(Bascom T. 51)

spreading tufts.

72

1946 Caroline Is.

26375 *Vernonia cinerea*  
on temple platform

76 *Ficus microcarpa*  
~~on temple platform~~  
coral rock

77 *Peperomia*  
on coral rock fill

78 *Nephrolepis biserrata*  
on basalt temple wall

79 *Peperomia*  
in crevices in basalt temple wall

80 *Messerschmidia argentea*  
on coral fill

81 *Polypodium scolopendrium*  
on logs and ~~rocks~~ in  
mangrove swamp

82 *Hoya*  
tangled in trees of mangrove  
swamp

83 *Heritiera littoralis*  
mangrove swamp

84 *Derris trifoliata*  
mangrove swamp

85 *Cordia subcordata*  
mangrove swamp

86 *Caesalpinia sappan* Baudac (L.)  
edge of mangrove swamp <sup>Roxb.</sup>

73

Ponape

flowers purple

stems red, fleshy  
"san mudal"

plant fleshy

"rawtil"

plant fleshy

spreading rounded tree  
4 m. tall, leaves fleshy,  
silvery green, flowers  
white.rhizome creeping  
"Bithen" (Barcom T57)vine with fleshy leaves  
"tekitek" (Barcom T74)tree 5 m. tall, sterile.  
"manapwenseth"extensive tangle vine;  
flowers pale pink.  
small treesterile vine (buds), tangled  
in trees "brasapal" (Barcom T39)

16387 *Colubrina asiatica*  
edge of mangrove swamp

88 *Procris pedunculata*  
abundant on temple walls

89 *Curcuma*  
in temple enclosure

90 *Turra leontopodioides*<sup>et al.</sup>  
on temple platform,  
coral fill.

91 *Scaevola frutescens*  
on sea wall of huge  
basalt blocks

92 *Rhizophora mucronata* Lam.  
dominant on sand flats  
covered by ~~high~~ tides

93 *Pemphis acidula*  
edge of mangrove  
swamp, on sea wall

94 *Guettarda speciosa*  
mangrove swamp

95 *Smythaea pacifica*  
mangrove swamp

scrambling shrub,  
flowers yellowish-green.

fleshy-stemmed shrub  
"pwaketh" (Bascom T50)  
caespitose, rhizome  
bright yellow, aromatic  
and bitter; bracts rose-  
purple above; flowers  
yellow and white.  
not used. "aulong."

erect herb 1 m. tall,  
linear bracts blackish,  
flowers green.  
"mokimole" (Bascom 24)

rounded shrub,  
flowers white  
"nnule" or "namuk" (Daren T55)

tree 5 m. tall, flowers  
white. (2 trees represented)  
leaves pinnate beneath.  
protruding, conspicuous.  
small tree, leaves  
sub-fleshy, flowers  
white. "ngi" (Bascom T133)

tree 5 m. tall, flowers  
white. "ith" (Bascom T129).  
vine climbing in trees

Aug. 11 - Matalanim  
 Retao River Ponape  
 coll. R. Lyman  
*Xylocarpus*  
 mangrove swamp

Aug. 12 Ronkiti, Ponape

weedy land planted  
 to coconuts, with  
 breadfruit, bananas,  
 and thickets. open  
 places under coconuts  
 quite grassy.

26356 *Phragmites karka*  
 reed brakes along river

97 *Erythrina*  
 common along trails

98 *Dieckum pyramidatum*

99 *Paspalum*  
 common along trails

26400 between rocks of trail

01 *Glochidion*  
 in thickets

02 *Centotheca latifolia* lappacea  
 common

03 *Macaranga*  
 in thickets

tree, fruit hanging.

canes 4 m. tall, hollow  
 "rao" canes formerly used  
 to make flutes. (Bascom T152).

Tree 6 m. tall; dry fruit  
 only. "paai" (Bascom T41)  
 weakly ascending.  
 erect or ascending.

small tree 4 m. tall,  
 seeds red.

shrub 2.5 m. tall "apuit"  
 (Bascom T25)

264001 *Digitaria*

common under trees

15 *Octagonthec* <sup>Lyathula</sup> <sub>multata</sub> common in under trees16 *Cyperus*

occasional

07 *Elephantopus scaber*  
common under trees08 *Dryopteris*

occasional under trees

09 *Urena lobata*  
occasional10 *Eleusine indica*

common

11 *Pteris*  
rare under trees12a *Lida hornifolia* L.

## Ponape

flower purplish  
" or en mikantinkap  
tuftserect, 1 m. tall, flowers  
pale lavender.  
considered a very bad weed.erect herb, leaves  
glaucous beneath  
"karap" (Bascom T52)  
"rea takai" (Dr Bascom T90)rhizome short, erect,  
fronds almost erect.

Aug. 13 - Tolun Nambet,  
mountain above Nantipil,  
drainage of Tawenjohola  
River, Nöt, Ponape  
wet mossy ridge  
top forest 600 m.

20412 *Lycopodium phlegmaria*  
epiphytic on tree trunks

13 *Ilex?*  
common

14 *Polypodium*  
common, epiphytic on  
tree trunks *phyllanthum*

15 *Lycopodium phlegmaria*  
epiphytic on tree trunk

16 *Adiantum*  
on ground at base of trees

17 *Gelam*  
on tree trunk

18 moss  
on buttresses of large tree

19 *Isichomanes* <sup>*Hypolephyllum*</sup> <sub>alternans</sub>  
epiphytic on tree trunks

20 *Lycopodium squarrosum*  
epiphytic on tree trunks, rare

21 *Puya*  
occasional

stem arching, tips  
pendent.  
small tree, flowers  
white (rare, stamens  
alternate with petals).  
fruit green.

pendent, coarser than  
# 20412  
-

green above, white  
beneath.  
standing out from  
substratum.  
fronds pointing downward.

small tree; flowers  
white, fruit immature.

1946 Caroline Is.

26422 *Schizaea dichotoma*  
under tree23 *Peperomia*  
on tree trunk

24 Terrestrial under tree

25 *Psychotria sericea*?26 }  
27 }  
28 }  
on tree trunk29 *Selaginella* banchine  
on ground30 *Wala*,  
rare31 *Claoxylon*  
rare32 *Astrowidium*  
common33 moss *Leucobryum sandwicense*  
common34 *Peperomia*  
rare on tree trunks35 *Vittaria*  
rare on tree trunks.  
*spiculifer capillifera*

Pomape

rhizome deeply buried.  
fleshyleaves with white  
stripes along midrib;  
flowers dull pinkish.  
small tree 4 m. tall,  
flowers white. Stipules  
calyptrate without ears.  
~~on tree~~ probably three  
forms represented.  
hard to be suresmall tree 5 m. tall,  
buds white, broken  
parts slightly aromatic.small tree 5 m. tall,  
fruit pale green.small tree 4-5 m. tall,  
panicles pendent.  
on log.

creeping, fleshy

abundant on tree trunks

same. - marshy  
more or less level plateau  
or bench, vegetation  
a tangled forest, rather  
broken down now. The  
original forest was

500 m.

26437 *Carex*abundant locally ~~in~~38 *Hymenophyllum polyanthos*

on tree trunks, rare

39

on tree trunks

40

~~on tree trunks~~

on tree trunks

41

on tree trunks

42

*Polyodium*

high on trunks of tall palm

43

high on trunk of tall palm

44

*Excoecaria* or *Ptychosperma*abundant but mostly  
cut, seedlings very abundant

dominated by palms  
(*Excoecaria* or *Ptychosperma*)  
which were largely  
cut by the Japanese, who  
used the ~~the~~ bud for food.  
Thousands of seedlings are  
coming in now. Other  
trees were left, but  
are mostly rather  
small.

*caespitosa*, up to 1 m.  
tall.

pendent

standing out from  
tree trunks

creeping, pseudo-bulbs  
turning red when old,  
flowers deep crimson.  
trees 20 m. tall, trunk  
3 dm. thick near base,  
2-3 panicles on tree at once, below  
leaf sheath pseudostem, fruit green.  
(Flowers white, from another tree, on ground)

26445 *Camposperma* <sup>a</sup> *brevipetiolata* <sup>Volk</sup>  
occasional here, becomes very common at lower altitudes.

46

occasional, terrestrial

47 *Lindsaya*

occasional on tree trunks

48 *Selaginella* <sup>hanchura</sup>

occasional on ground

49

on tree trunks

50 *Asplenium*

on tree trunks

51 *Spathoglottis*

terrestrial, rare, one seen.

52 *Coelococcus* *amicum*

2 trees seen at this altitude, abundant near sea level

53 *Dryopteris*

on tree trunk, rare.

54 *Asplenium*

uncommon, on tree trunk

55 *Trichomanes* *javanicum*

on rocks in small streamlet

tree 8-10 m. tall, 10 cm. thick, wood white, soft. only one raceme found. "thong" (Barcon 73) Wood used for lumber.

rhizome creeping vertically. leaves somewhat glaucous beneath. forming a loose mat.

flower white with yellow lip with purplish patch distally on underside. palms 20 m. tall, leaves ascending, specimens from material fallen to ground beneath.

dark green.

26456 *Peperomia*

on tree trunk

57

terrestrial, occasional

58 *Bamningtonia racemosa*  
common in forest,  
down to sea level59 *Histiopteris incisa*  
rare60 *Timonius*  
common in forestsame broad  
wooded ridge  
with *Ponapea* quite  
abundant 250m.61 *Trichomanes javanicum* Bl. in  
on rocks in steep trail62 *Selaginella hawaiiensis*  
on ground between rocks  
occasional63 *Ardisia*  
rare on flat top of ridge  
in woods

fleshy

this specimen from  
fallen tree, trees up  
to 10 m. tall, inflorescence  
pendent, usually  
much more elongate  
than this one, stamens  
white.

bluish green

tree 15 m. tall, flowers  
white or pinkish white,  
ripe fruit black.

dark green

~~occasional~~single stem 1.5 m. tall,  
ripe fruit bright red.

24464

occasional in woods  
on flat ridge top

65 *Asplenium nidus* L.  
common, epiphytic

66 *Ponapea*  
common

67 *Dypsis stereum*  
on rotting wood

small tree 5 m. tall,  
buds white.

rosette of ascending  
leaves, the top hollow  
and collecting dead leaves.  
tree 10-12 m. tall,  
2 leaves ascending,  
2-3 inflorescences  
on stem below pseudo-  
stem of leaf sheaths,  
trunk about 10-12 cm  
thick, outer woody  
cylinder hard, inflorescences  
and flowers white,  
fruit green, seed stellate  
in cross section, at  
immature stage, jelly-  
like in consistency.

The vegetation of Ponape, as nearly as can be determined from our brief visit, may be divided into ~~four~~<sup>seven</sup> general types:

1. The shallow water near shore in the lagoon is dominated by the large sea grass "sloth", with a few algae intermixed. It was not determined how general the distribution of this is, but it is prominent in Ponape and Matalanin harbors.

2. Strand formation is found ~~only~~ to a very extent only on several small islets on the reef offshore -

The usual species are found there.

3. Mangrove formation fringes almost the entire coastline and forms extensive islands

in shallow water, especially at the mouth of Ponape harbor. Two species of *Rhizophora*, *Bruguiera*, *Conneratia*, *Xylocarpus* are common. At the mouth of Matalanin harbor the artificial islands around the Nanmatul mounds are dominated by mangroves, but with a slight admixture of strand species.

4. The narrow coastal strip and the lower slopes are largely planted to coconuts where they are not so planted and as far above as human activity has been heavy, a tangled secondary growth, mainly of *Hibiscus tiliaceus* but with a scattering of native trees. is present. Outline of clearings on the mountain

*Messerschmidia heliotropifolia*  
*Corchorus*  
*Xanthium*  
*Ipomoea*

may be seen, but on closer inspection prove to be solid *Hibiscus tiliaceus*. Under the coconuts weeds of many sorts flourish. A species of *Dactyloctenium*, said to have been brought in by the Japanese, completely dominates many open areas. Tangles of *Miscanthus* sp. are common. *Pennisetum purpureum*, also brought in by the Japanese (for paper making) is also common. In low wet places *Hedychium coronarium*, brought from Hawaii, and *Dryopteris* parasitic form a dense ground cover. In still wetter places are brakes of a giant reed. (26303, 26396).

It is in this area that people live, and much of the land is under cultivation, in coconuts, breadfruit, yams, taros and taro-like plants,

bananas, *Manihot*, sweet potato, etc. Above Matalanum is a 2500 acre coconut plantation. Sugar cane was formerly cultivated on a fair scale in the Matalanum lowlands.

5 On a few ridges, especially on the west side of the island, are open areas, covered mainly by *Gleichenia linearis*. These areas are apparently, both according to the natives and by observation of burned stems, kept in this condition by repeated burning. Here *Miscanthus japonicus*, *glossyhidion*, *telezia*, and other members of the burned land flora so characteristic of the islands further west are found.

6 The lower forests, up to about 300 m., are tall forests dominated by a number of trees, especially *Pisonia*, *Parinari*, *Campnosperma*, *Ponapea*, etc. The larger trees of this area were not well investigated for lack of time.

The undergrowth in places is rather dense. Large ferns, *Adenia*, etc. with a semblry sterile *Frondosus* and a few *Cinettia* make it up.

The forest is wet and filmy ferns and epiphytes are common.

*Hibiscus tiliaceus* invades this section very readily, both in man-made openings and apparently in landslide areas.

7 The montane rain forest is of a great mixture of species but is dominated by the large palm, *Worleya* or *Ptychosperma*. Though this has been largely cut by the Japanese for the cabbages of the terminal bud, millions of seedlings are coming back.

This is a dripping very mossy forest, with a tremendous epiphytic flora, on trunks, branches, and leaves. Filmy ferns are common.

*Timonius*, *Elaeocarpus*, *Enya*, *Claoxylon*, and many other trees are common.

The extreme crests were not visited, so it is not known whether there is a special flora there.

98

99

Aug. 16 - Kwajalein Islet  
flat coral sand 1 m.  
around buildings and  
roadsides.

26468 *Clerodendron inerme*  
planted near buildings

69 *Portulaca samoensis*  
on sand mound above beach  
rare

70 *Euphorbia chamaesimis*  
roadsides, rare

71 *Scaevola frutescens* (Mill.) R. Br.  
vacant lot, occasional

72 *Ipomoea alba* L. tuba  
vacant lot, common

73 *Euphorbia thymifolia*  
vacant lot, common locally

74 *Thunbergia involucra*  
roadsides, common

75 *Digitaria*  
vacant lot, local

76 *Wedelia biflora*  
roadsides, common

low spreading bush;  
flowers white, stamens  
~~near~~ and style maroon purple.  
plant fleshy, leaves  
somewhat compressed,  
flowers yellow, 13-14  
mm. across, petals  
apiculate

leaves sub-fleshy,  
pale beneath, flowers  
greenish.

bush 1 m. tall, flowers  
white, fruit white, fleshy.  
prostrate, extensive,  
flowers white, ~~fall~~  
collapsed before 10:30 a.m.  
prostrate, purplish green.

prostrate, forming a  
dense mat, ~~near~~ flowering  
branches erect.

prostrate, extensive,  
flowers yellow.

76477 *Lepturus repens*  
common locally

78 *Triumfetta procumbens*  
common locally

79 *Messerschmidia argentea*  
occasional near  
outer beach

80 *Ipomoea pes-caprae*  
common, used as lawns  
in front of buildings

81 *Sida fallax*  
rare, roadside

82 *Euphorbia heterophylla*  
common, planted as  
ornamental and spontaneous

83 *Eragrostis amabilis*  
common

84 *Cyperus*  
occasional in wet places

85 *Eleusine indica*  
common

86 *Cenchrus echinatus*  
common

87 *Phyllanthus serraria* Schum. & Th.  
var. *hirsutiflora* B. Webster  
common locally

88 *Fimbristylis cymosa*  
very common

89 *Cynodon dactylon*  
abundant, probably planted

prostrate, spikes  
ascending.

— prostrate, extensive,  
flowers yellow.

— small tree 4 m. tall,  
leaves fleshy, silvery green,  
flowers white.

— prostrate, extensive,  
flowers bright purple.

— prostrate, flowers  
orange.

herb up to 7 dm. tall,  
erect red at base.

tufts, spreading  
caespitose

caespitose

caespitose

erect

caespitose

forming dense mats

b. Webster  
1955

24490 *Centella asiatica*  
abundant locally  
especially in wet places

91 *Portulaca oleracea*  
common generally

Aug. 17

(Bennett I.)

Kwajalein Atoll  
coral sand and gravel  
much torn up by  
bulldozers, but  
being densely re-vegetated  
by a deep tangled

92 *Oxalis* <sup>oppositifolia</sup> ~~fruticosa~~  
common locally

93 *Tacca leontopetaloides*  
common locally

94 *Guettarda speciosa*  
occasional

95 *Terminalia littoralis* <sup>zamboana</sup>  
occasional

96 *Pandanus tectorius*  
occasional

stem prostrate  
prostrate  
fleshy, flowers  
yellow over 1 cm. across,  
stamens 10-14.

brush of *Wedelia*,  
*Messerschmidia*,  
*Leucocoma*, etc. Openings  
densely covered by  
grasses, *Portulaca*,  
*Ipomoea*, etc.

2 m.

small tree 5 m. tall;  
flowers white, fruit  
green, in pairs.

herb 1 m. tall. Tending  
to be yellow where  
exposed to direct sun.

tree 4 m. tall, fruit  
immature

tree 4 m. tall, fruit  
bright red, terete.

tree 6 m. tall, ripe  
fruits from ground  
beneath tree; leaves  
in 3 conspicuous  
spiral ranks.

26497 *Cassytha filiformis*  
parasitic on Guettarda  
and other shrubs

93 *Digitaria purpurea* var. *microcarpa*  
local in openings

99 *Pemphis acidula*  
rare on inner beach

26500 *Portulaca oleracea* L.  
common in openings

01 *Euphorbia hirta*  
local in openings

02 ~~Foxtail~~ <sup>Digitaria</sup> *insulana*  
one small patch seen

03 *Amaranthus dubius*  
one small colony seen

04 *Cenchrus echinatus*  
common in openings

05 *Eragrostis amabilis*  
common in openings

06 *Ipomoea pes-caprae*  
common in openings and  
on beaches

07 *Mimosa citripolia*  
one small bush seen

08 *Wedelia biflora*  
abundant, forming a  
major part of vegetation  
in low thickets

stems fleshy, green,  
yellow where exposed  
to much direct sun;  
flowers white.

small tree 5 m. tall;  
flowers white.

fleshy, purplish  
bronze green.  
very chlorotic.

erect

spreading tufts,

forming soft carpet on  
ground

prostrate, extensive,  
flowers bright purple.

steins.

herb 1 m. tall, tangled;  
flowers yellow.

26509 *Pipturus argenteus*  
occasional in thickets

10 *Repturus repens*  
common in open places

11 *Allophylus timorensis*  
occasional in thickets

12 *Pisonia grandis*  
occasional remnants  
of original forest

13 *Portulaca sauvensis*  
common on open coral sand

14 *Trumpetta procumbens*  
common in open places

15 *Canavalia micropurpa*<sup>Cathartica Thunb.</sup>  
local, in open place  
seen also in thickets

16 *Scaevola frutescens*  
common

17 *Elatine indica*  
occasional around buildings

18 *Fimbristylis cymosa*  
common in open places

19 *Ipomoea alba* sub. *tuba*  
common

20 *Messerschmidia argentea*  
common everywhere

shrub 2 m. tall  
tufts with numerous  
shrub 2 m. tall,  
flowers white.

tree 7 m. tall, leaves  
up to 3 ~~4~~ dm. long

prostrate fleshy,  
flowers yellow.

prostrate, extensive,  
flowers yellow.

prostrate, extensive  
flowers magenta-pink.

shrub 1 m. tall (seen  
up to 3 m.), flowers  
white.

caespitose, extremely  
variable in size.  
vine, prostrate, flowers  
white, not open  
yet just after noon.

shrub 3 m. tall; leaves  
fleshy, silvery green,  
flowers white.

24521 *Vigna marina*  
common in openings

22 *Chloris inflata*  
common in openings

23 *Pluchea indica*  
rare, around pile of  
oil drums.

24 *Thunera involuta*  
common in openings

Only two islets of  
Kwajalein Atoll,  
(Bennett) and Kwajalein  
were visited.

Kwajalein Islet is  
almost completely  
covered by buildings  
and roads. Of 27  
species of plants seen  
only *Codium*, <sup>Vigna</sup> *Erinum*,  
and an unrecognizable  
*Euphorbia* were not collected.  
*Cynodon dactylon*  
(probably planted) is  
common everywhere.  
Large patches of  
*Wedelia*, *Triumfetta*,

prostrate, extensive,  
flowers yellow,  
opening about noon.  
Tufts, decumbent at  
base, then culms erect;  
spikes purple.  
Bush 0.8 m. tall,  
flowers pink.  
prostrate, forming  
mats.

*Centella*, *Ipomoea pes-caprae*,  
*Lepturus* are common;  
*Portulaca oleracea* is  
general, *Fimbristylis* also.  
*Ipomoea pes-caprae* seen  
as lawns in front of  
buildings. Shrubby  
or tall vegetation is  
very scarce - a few  
trees of *Messerschmidia*  
and scattered *Acacia*  
bushes are about all  
that can be seen.  
Most areas that are  
undisturbed are being  
revegetated.

On Bennett Islet the revegetation has reached a much more advanced stage.

Tangled masses of tall *Wedelia*<sup>lancea</sup>, *Alaerola* and *Messerschmidia*, with occasional *Pipturus* and *Pisonia* dominate the island. Scattered taller *Pisonia*, *Pandanus* and *coco* trees remain. Open spaces are filled with *Cenchrus*, *Chloris*, *Portulaca oleracea*, *P. samoensis*, *Vigna*, *Ipomoea pes-caprae*, *Lepturus*, *Eragrostis amabilis*, *Fimbristylis*, *Triumfetta*, *Ipomoea alba*, *Digitaria*, *Euphorbia hirta* etc.

in locally varying abundance with no particular pattern.

*Guettarda*, *Ochrosia*, etc. are common locally, the larger plants obviously persisting from before the war.

Young *Guettarda* seedlings are common. *Cassytha* is locally abundant, particularly on *Guettarda*.

*Tricachea insularis* and *Pluchea indica* have obviously been introduced from Hawaii on material ~~to~~ such as oil drums, machinery, etc. brought in during the war. They are not common as yet.

August 19 - (Lelé) Island

Lelé (Lelé) Harbor, Kusair  
around village and  
ruins of ancient temple,  
quite moist

26525

*Alocasia macrorhiza*  
occasional in village,  
spontaneous.

- 26 *Culcasia esculenta*  
planted in water in  
bomb crater.

- 27 *Cyperus bayllingii*  
about village

- 28 *Morinda citrifolia*  
in village

- 29 *Pteris*  
in ruined temple court

30)

31)

32)

on rotting wood

- 33 *Asplenium nidus*  
on wall of ruin, common

- 34 *Ficus prolixa*  
in ruined temple court

- 35 *Plocosia pedunculata*  
walls of ruined temple  
court

"onaki" not eaten  
leaves clear green

"katak" eaten  
leaves glaucous green  
heads white

shrub, others seen  
were tree, "hi"  
rhizome short, erect.

"

rosette of ponds with  
dead leaf debris in center  
"moilubaluk"

huge banyan, common  
trunk 4 m. thru "konyä"  
stems fleshy,  
pistillate fls. white

26536 *Nipa fruticans*  
- swamp near ruins

37 *Nephrolepis*  
wall of ruined temple court  
(very common in under-  
growth generally at low altitudes.)

- 38 *Peperomia pinnatifida* (L.) C.  
walls of ruined temple  
court, basalt blocks.

- 39 *Polypodium scolopendria*  
common on walls of  
ruined temple

- 40 *Ficus tinctoriae*  
growing on trunk of  
large banyan

41 *Elatostema*  
in ruined temple court

42 *Vittaria*  
on banyan trunk

- 43 *Piper pinnatifidum* (L.) C.  
climbing on banyan trunk

- 44 *Denis trifoliata*  
climbing on walls  
and bushes, edge of  
swamp near ruins

acaulescent, leaves  
erect, fruit not in  
season, those with  
specimen lying  
near plant, some  
germinating "faasha"  
fronds erect to  
arching, mostly sterile.

fleshy

shrub; leaves  
venulose beneath,  
figs immature "shā"  
stem fleshy, branched  
especially at base.  
fronds pendent.

vine (longer of spikes  
picked up in ground  
beneath.)

vine, flowers pink.

118 1946 Caroline Is.

26545 *Laportea* *Dendroica kusaeana* (Kunze) Chev  
common in ~~old~~ ruined  
temple court

- 46 *Acbyranthera* <sup>gatula</sup> *prostata*  
weed in village

- 47 *Denis elliptica*  
~~common~~ everywhere

- 48 *Premna* <sup>renatipolia</sup> *obtusifolia* R. Br.  
common generally

- 49 *Impatiens* *balsamina*  
cultivated in garden.

- 50 *Cordia subcordata* Lam.  
near dwelling

- 51 <sup>Laportea</sup> *Flosaia undulalis*  
coral rubble

Kusae

119

small tree 4 m. tall,  
not stinging except  
flowers, which, when  
rubbed on tender skin  
give make a red spot  
which burns somewhat  
for a few hours.

(sap and leaves tried  
with no result) "elaat"  
flowers pinkish

wine-like; roots  
lactiferous; leaves  
glossy beneath; sterile;  
"up" or "poison" roots  
used to poison fish.

small tree 5 m. tall;  
flowers green, aromatic;  
fruit immature "fienkak"  
stem fleshy, flowers  
pink. plants up to 0.8 m.  
tall.

shrub 2 m. tall,  
flower deep bright orange  
"ikwaiak" flowers  
used to ornament hair;  
wood used for paddles.  
plant reddish.

26552 *Piperomia pellucida*

common on coral rubble in path

- 53 *Caesalpinia pulcherrima* (L.) Sw.

in dooryard, planted

- 54 *Pseudanthemum carthaginense*  
*elatoides* in dooryard, planted- 55 *Sida acuta*  
in village- 56 *Pilea microphylla*  
in paths on coral rubble  
and in crevices in rock  
walls.- 57 *Pipturus argenteus*  
in old enclosure  
in dooryard- 58 *Pipturus argenteus*  
in old enclosure in  
dooryard- 59 *Phyllanthus amarus* Schum. & Th.  
*zeylanicus* det. G. L.  
common in village

fleshy.

shrub 2.5 m. tall,

- fls. yellow "repawin"  
shrub 2 m. tall, leaves  
clear green, flowers  
white, strongly dotted  
with crimson around  
throat, one lobe pointing  
down, 2 laterals very  
slightly down, 2 upper  
ones erect and overlapping.  
"Kaiawak"- herb, m. tall, flowers  
yellow, few. fruit black.  
plant fleshy, spreading.shrub 2.5 m. tall ♂  
"allos" leaves white beneathshrub 2.5 m. tall, ♀;  
leaves white beneath,  
fruit white, fleshy.  
"allos"

erect.

26560 *Calophyllum inophyllum*  
- along beach

Aug. 19 lowest slopes  
and foot of Mt. Matante  
nath of head of Lela (Lele)  
Harbor, Kusai

low ridges, ravines  
and marshes, with  
*Manihot* patches, thicket  
patches of woods, etc.

- 61 *Angiopteris evecta* <sup>(Arec.)</sup> Hoffm.  
wooded ridge

62 *Psychotria*  
wooded ridge

- 63 *Oplismenus compositus*  
wooded ridge, local.

- 64 *Centotheca latifolia* <sup>Lappacea</sup>  
wooded ridge, common

- 65 *Polyscias subcapitata*  
occasional on wooded ridge

- 66 *Piper sarmentosum* C. Chr.  
climbing tree trunks

great tree 15 m. tall,  
trunk 1 m. thick, lactiferous;  
flowers white "iti"  
wood used for lumber.

rhizome short, erect,  
very thick; stip. base  
surrounded by stipules,  
fronds 4 m. long.

shrub 3 m. tall, flowers  
white; stipules not  
calyptate; fruit red  
when ripe.

decumbent, fruiting  
culms ascending  
culms tangled, ascending

shrub 2 m. tall

vine.

No 67 *Dryopteris parasitica*  
abundant everywhere  
in undergrowth

- 68 *Pisocereus bulbifera*  
common on wooded ridge  
very large, said to  
be a serious weed, killing  
even coconuts by strangling  
and smothering

69 *Asplenium*  
common on tree trunks  
on wooded ridge.

70 *Melochia*  
occasional in old  
Manihot patch on  
ridge

- 71 *Ipomoea indica*  
common in thickets  
in old manihot patch on  
top of ridge

- 72 *Ipomoea Memoria* *nettata*  
common in thickets, this  
one in treetop

73 common wooded ridge

rhizome short, erect,  
pods erect.

large herbaceous vine.  
sterile. "bula" (fide Paul Gant)

rhizome creeping  
up trunk vertically.

small tree 4 m. tall,  
flowers fragrant,  
crimson with pale margins.

large vine, flowers  
purple, deeper in  
throat, anthers ~~are~~ straight,  
~~filament~~ glabrous;  
leaves pale beneath.  
"asingsing"

large lactiferous  
vine, flowering very  
rarely, flowers bright  
yellow; ~~filament~~ ~~anthers~~,  
anthers spiral, villous.  
tree 10 m. tall, flowers  
yellow, fruit red, aerial  
bright red.

leaves  
distichous

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- 76574 *Phragmites karka*
  - common in marsh
- 75 *Fusciaea odoratissima* (Jacq.) R. Br.<sup>subsp. *odoratissima*</sup>
  - abundant in marsh
- 76 *Camponotus burmannicus*
  - occasional, this one in marsh
- 77 *Paspalum conjugatum*
  - opening in *Manihot* patch on low ridge.
- 78
  - common on low ridge
- 79 *Manihot esculenta* var.
  - cultivated on low ridge (in clearing)
- 80 *Contarinia?* *Neoburgia celebica*
  - rare on low ground along stream

Kusai

127

- canes 4 m. tall "loa"
  - herb 2 m. tall, flowers yellow, petals broad,  
~~falling~~ falling very readily.
- tree 1-2 m. tall; flowers yellow-green; "ka"
  - wood used for canoes.
  - tangles
- tree 1.5 m. tall, spreading,
  - leaves distichous, drooping,  
panicles erect. "numu"
- shrubs 2-3 m. tall,
  - stems knobby, flowers green marked with red,  
"tapioca" natives were forced by Japanese to plant this to feed soldiers, now eaten by natives.
- rounded tree 6 m. tall,
  - flowers white; ripe fruit orange. wood used for lumber, fruit sticky inside, used for glue.

*merkusii* (Hassk.) Schott  
det. D. H. Nicolson 6/1948

- 26581 *Cyrtosperma chamissonis*  
cultivated in marshy places

- 82 *Cordyline terminalis* <sup>puticosa</sup>  
occasional in thickets

Aug. 20 north ridge of  
Mt. Matanta (Buache),  
above Tafonshak village,  
n. side of Kusai 300-550  
met thickly wooded  
ridge, woods largely  
*Astronium* and

83 *Elaeocarpus*  
occasional ~~in~~ in dense forest of  
*Hibiscus tiliaceus*

- 84 *Ficus tinctoria*  
common in dense forest of  
*Hibiscus tiliaceus*

- 85 *Fagraea berteriana* var. *lusaiensis*  
(Hassk.) Forst.  
occasional

86 *Elaeocarpus*  
one of dominant trees  
in forest

leaves erect, becoming  
2 m. or more tall,  
petioles without  
prickles, mottled toward  
base. "bashaak"  
corm eaten. (many varieties)  
- stem 1-2 m. tall; stipe;  
root rooted and eaten.

*Elaeocarpus* with  
~~tree ferns~~ *Cyathea*  
above 300 m., dense  
undergrowth mostly  
ferns; epiphytes very  
abundant.

~~150~~ m. slender tree, fruit  
immature.

~~150~~ m. tree 3 m. tall, fruits  
yellow when ripe,  
not eaten here.

~~200~~ m. tree 3 m. tall, flowers  
cream white, very  
fragrant. "für"

tree 3 m. tall, some  
leaves turning bright  
red; fruit blue when  
ripe.

26587 *Marattia faxonii*  
- very common in undergrowth

- 88 *Lycopodium phlegmaria*  
on tree trunks

89 *Asplenium*  
on tree trunks

- 90 *Cordyline terminalis* (L.) Chav.  
rare in forest

- 91 *Astronium surinamense* Hoch.  
one of dominant trees

- 92 *Eugenia*  
common at this altitude

93 *Psychotria*  
occasional

- 94 *Psilotum complanatum*  
occasional, epiphytic on  
tree trunks

95 *Asplenium*  
rare on tree trunks

350 m. acauliscent, fronds about  
2-3 m. long, stipe as  
long as blade, base of  
stipe surrounded by  
stipules, blade deltoid,  
with about 3 pairs  
of ~~poisonous~~ pinnæ,  
joint large, fleshy.  
spikes pendent

400 m. single stem 1.5 m. tall,  
buds white.

- small tree 4 m. tall,  
(others taller); flowers  
white.

- small tree 7 m. tall,  
~~fls~~ caulinorous, cymes  
on pulvini on trunk.

- shrub 2.5 m. tall,  
fruit red; both twigs  
from same bush.

450 m. pendent, sides of  
stems smooth, basal  
part ruguetous.

26596 *Psychotria*  
occasional

97 *Psychotria*  
rare

- 98 *Ixora* <sup>casei Hance</sup> ~~ad~~ *carolinensis*  
occasional

- 99 *Adenostemma lavenia*  
common along trail

26600 *Brathysia* <sup>Phlegon</sup>  
occasional, terrestrial

01 *Cryptandra*  
fairly common

02 *Cryptandra*  
rare

03 *Tectaria*  
occasional

- 04 *Peperomia kusanoi* Horohova  
rare, on mossy tree trunks

- 05 *Hymenophyllum holochilum*  
on tree trunk, common

500 m. clump of shrubs  
2.5 m. tall. possibly  
from same root; flower  
white, fruit red.

shrub 2 m. tall,  
flowers white, fruit  
immature

shrub 2.5 m. tall,  
flowers vermillion to  
scarlet.

flowers white; "mafulful"  
medicine made from  
this given women at  
childbirth.

erect leaves thin, plicate,  
buds white.

stem fleshy; flowers  
white, tube strongly curved;  
fruit dull white, fleshy.

stem fleshy, pubescent  
tawny, close; flower  
white, tube curved;  
fruit immature.

fleshy

26000 *Asplenium*

on very mossy tree trunk

- 07 *Flagellaria indica*  
~~common~~ occasional
- 08 *Parapoa* *Pythosperma ledermannii*  
rare

same - summit ridge  
and sides of summit  
sides densely wooded,  
top ridge open, covered  
with ferns, a few  
scattered trees with  
immense moss cushions  
over most of trunk and limbs.

09

open steep ~~bank~~ <sup>bank</sup> near  
Japanese tunnel10 *Cyrtandra*  
occasional

- 11 *Vernonia Blumei milnei*  
along trail near Japanese tunnel
- 12 *Histiopteris incisa*  
on side and top of ridge

250 m. vine, sterile. "tret"  
used for thatch.450 m. tree, buds white,  
fruits green, with  
~~safe~~ ~~water~~ in seed cavity.

550-600 m.

550 m. prostrate, flowers  
calyx simulating Begonia,  
corolla white with tube,  
throat and lower lip  
purplish.stem fleshy, 1 m. tall,  
flower white, tube  
curved.

erect herb 3-3.5 m. tall

575 m. forming tangles,  
growth of ground indeterminate.

26013 *Pteris*  
common on sides of ridge in forest

- 14 *Blechnum orientale*  
on cliffs and steep ridge side  
at edge of open part

- 15 *Adiantum*  
common, terrestrial

16 *Dictyoptera incipuum* Mont.  
on mossy tree trunk

- 17 *Lycopodium cernuum*  
common on open ridge

18 *Elaeocarpus*  
occasional on open ridge  
common in forest below

19 in tree at lower edge  
of open ridge top, very  
common

20 ~~*Davallia*~~ *hymenophylloides*  
very common on open  
ridge top

21 rare on open ridge top

22 *Polyodium*  
rare on branch of tree on  
open ridge top

23 *Polyodium*  
on branches of trees on  
open ridge top

rhizome short, erect,  
fronds ascending to erect.  
rhizome short, erect.

fronds erect

blue green with  
white margin.  
tangled with ferns.

600m. small tree 6 m tall,  
old leaves bright red,  
fruit immature, rare.

575m. pendent, flower  
cream color (very  
rarely in flower  
at this season)

600m.

rhizome short, erect,  
edges of frond drooping.

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26624

on mossy branches of  
trees on open ridge top

25 *Elaphoglossum*  
on branches of tree on open  
ridge top.

26 *Davidia* *Humata*  
common, ~~the~~ rhizome  
deep in moss on tree  
trunks and rocks on open  
ridge top

27 forming deep cushions  
on limbs and trunks  
of trees on the open ridge top.

- 28 *Gleichenia linearis*  
common on open ridge top

- 29 *Melastoma malabathricum* v. *marianum*  
at edge of forest along  
open ridge top

- 30 *Astromidium huaceae*  
edge of forest along open  
ridge top

- 31 *Rubus moluccanus*  
cliff along open ridge top

32 rust on *Rubus*

- 33 *Hymenophyllum polyanthes*  
on vertical rock face, on  
open ridge top, abundant.

Kusais

139

leaves distichous;  
flowers white.

fertile fronds rare,  
twisted.

forming low tangle

shrub 1.5 m. tall,  
flowers pink.

shrub 2 m. tall,  
flowers white.

prickly vine, tangled  
in ferns  
bright orange

26034 *Ipomoea gracilis* littoralis H.  
- rare on open ridge top

35 *Nephrolepis*  
dominant plant on open  
ridge top

Aug. 21 - Valley south of  
Lela (Lele) Harbor, Kusaie  
Flat weedy valley bottom,  
mostly an abandoned  
sweet potato plantation  
and shore of bay.

- 36 *Pennisetum purpureum*  
common just back of  
strand.

- 37 *Cyperus stans* <sup>javanicus</sup>  
occasional in <sup>low</sup> abandoned  
field.

- 38 *Synedrella nodiflora*  
occasional

- 39 *Paspalum vaginatum* <sup>distichum</sup>  
(40 n.p.) on pier of coral rock, not grass.

- 40 ~~*Sonneratia*~~ <sup>alt</sup> *Sonneratia caseolaris* <sup>for</sup>  
common in shallow water,  
the most abundant mangrove  
in the island.

- 41 *Ipomoea pes-caprae*  
abundant at top of beach

slender vine, flower purple.  
rhizome erect, stolon-  
iferous; fronds erect.

1 m.

clumps 1.5-3 m. tall

caespitose, gray-green.

branched herb; flowers  
yellow  
dense mat

small tree 5 m. tall,  
others much larger  
"flop" "folofol"  
wood used for lumber.  
prostrate, extensive,  
flowers purple,  
much deeper in throat.

26640 *Chloris radiata*  
 - local, on pier  
 - 43 *Dactyloctenium aegyptium*  
 local, on pier  
 - 44 *Miscanthus saccharinus*  
*saccharinus spontaneum*  
 'valley floor toward head  
 of valley, common, running  
 up slopes in openings and  
 old landslides.  
 - 45 *Luffa cylindrica* var. *multiloba*  
 weed in abandoned  
~~sweet potato~~ patch  
 - 46 *Ipomoea batatas*  
 planted extensively  
 by Japanese in heavy  
 low land, planted  
 on ridges with  
 deep furrows between  
 - 47 *Vigna marina* (Burm.) Merr.  
 very abundant from  
 beach back to the  
 lower slopes of the  
 mountains in cleared land  
 - 48 *Echinochloa colonum*  
 common in abandoned  
 sweet potato patch  
 49 occasional in abandoned  
 sweet potato patch.

decumbent at base, rooting  
 at nodes.  
 - spreading, rooting at  
 nodes  
 large clumps, canes  
 up to 4 m. tall, in  
 places forming dense brakes.  
 vine climbing on bush,  
 flowers yellow.  
 vine, flower pale  
 purple.  
 prostrate, extensive  
 forming a thick  
 mat at least 0.5 m.  
 deep in places, flower  
 yellow.  
 erect

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1946 Caroline Is.

26650 *Emilia sonchifolia*  
common in abandoned  
sweet potato patch  
and lower slopes of  
hills

#

same - lower slopes  
around head of valley  
thick secondary woods  
mostly *Hibiscus tiliaceus*  
tangled with *Wedelia*  
and *Merremia*  
- 51 *Boehmeria celebica* Bl.  
along trail, occasional

- 52 *Cyathea*  
rare in woods here,  
very common at higher  
altitudes

"Po"

*Wollastonia*

- 53 *Wedelia biflora*  
abundant in open  
land everywhere, even  
up to 500 m. altitude on  
landslides, common weed in  
coconut plantations.

145

Kusaie

heads purple.

50-150m

shrub 1.5 m tall,  
diffuse; this one all  
staminate.  
tree with trunk 6 m.  
Tall, crown of leaves  
about 2 m. long,  
lance-ovate in outline.  
2 complete specimens  
of base, lower pinnae,  
middle pinna, & tip.  
Duplicates of a single pinna  
near middle of frond.

herb, forming tangles  
2 m. or more deep.  
flowers yellow. Said to  
be eaten by cattle.

v654 *Dioscorea alata*  
 - 55 in secondary woods  
 - 55 *Ipomoea gracilis* littoralis  
 along trail in low  
 secondary growth  
 56 *Digitaria*  
 fairly common along  
 trail and on open slopes  
 - 57 *Selaginella busiensis*  
 common on shaded banks above  
 trail  
 58  
 occasional along trail  
 - 59 *Rubus moluccanus*  
 common in secondary  
 growth along trail

Aug. 21 south slopes  
 and ridge of Mt. Tafeyet  
 (easternmost high peak  
 in Mt. Crozier range),  
 south of Lela (Lele) Harbor  
 60 ~~*Geophardia* *berbena*~~ Kusai  
 common

vine climbing into  
 trees, tubers eaten.  
 vine climbing in  
 shrubs, flower purple,  
 deeper in throat.  
 loose tangles

ascending, flowering  
 very rarely; flowers  
 with 3 white petals  
 about equal in size.

vine, rather extensive,  
 flowers white.  
 "kokul"

Thick wet mixed  
 forest interspersed with  
 patches of *Hibiscus tiliaceus*  
 (these probably indicating  
 200-350 m. old landslides). The  
 forest more mixed than  
 on Mt. Matante, *Astronium*  
 very common but *Claoxylon*  
 much less so. Some  
 openings filled with  
*Gleichenia* sp.

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1946 Caroline Is.

*Geococcyx rufus* var. *avatus*26660 *Geococcyx herbacea*  
- in open ground under  
trees

61

local on slopes and ridges  
under trees.

62

local on slopes and ridges  
under trees- 63 *Dioscorea esculenta*<sup>*nummularia* Lam.</sup>  
rare in forest- 64 *Cathartocarpus*<sup>*nebulosus* C. Presl</sup>  
common in forest- 65 *Blatostemma*  
common in forest- 66 *Psychotria carolinensis*<sup>*hirsutissima* var. *sparsa*</sup>  
occasional in forest- 67 *Rubus moluccana*  
occasional along trail- 68 *Piper piperaceum* C. DC.  
very common

149

Kusaie

200m. prostrate, flowering  
branches erect; flowers  
white, fruit red.

caespitose

(growing with # 26662)

caespitose

(growing with # 26661)

vine climbing in trees,  
sterile, prickly toward base.  
"mata" tubers eaten.250m. large tree, fruits  
-300m. pendent, orange,  
fleshy, "tua" used  
for lumber.erect, tips arching,  
stem fleshy, leaves  
distichous venulose  
beneath.shrub 7m. tall, ripe  
fruit red.vine-like, flowers  
white.vine climbing in  
trees, fruiting very  
rarely, fruiting spike  
crimson.

26669 *Phajus*

- occasional in forest, terrestrial

- 70 *Lycopodium squarrosum*  
on tree mossy tree trunk
- 71 *Antrophyum plantagineum*  
on wet sticks and  
rock ledges
- 72 *Gleichenia weatherbyi* Forb., n. sp.  
filling openings  
with a dense tangle

73

rare on slope under trees

- 74 *Boehmeria celebica*  
occasional in forest

75

common ~~terrestrial~~<sup>under trees or steep slopes</sup>, terrestrial  
*Trichomanes javanicum* Bl.  
rare on rocks

400-500m.

erect, sub-caespitose,  
stem thick, flowers  
white with yellow  
lip densely <sup>red</sup> punctate  
distally, except margin,  
below, this extending proxim-  
ally in 2 narrowing lines.

500m.

300-400m.

500m.

rhizome under duff layer,  
stipe thick (definitely  
distinct from *G. linearis*  
in much greater robustness,  
degree of ramification  
and type of pubescence.  
creeping, flower  
white, lower side of  
throat and lower lip  
purple.

450m shrub 2 m. tall,  
leaves not especially  
nugose, flowers all  
pistillate.

leaves dull green,  
not in flower at this season.  
deep green but translucent

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26677 *Elatostema*  
- on vertical <sup>moist</sup> rock cliffs  
in deep shade.

78 *Polypodium*  
common on limbs of  
leaning tree

- 79 *Boehmeria celestina* Bl.  
occasional in woods  
on steep slope

- 80 *Ixora carolinensis*  
<sup>casei</sup> Hance  
common at this altitude

Aug. 21 - Lela (Lele) Island

~~is~~ in village

- 81 *Eugenia malackensis*  
planted on slopes  
about village

- 82 *Hibiscus tiliaceus*  
dominant tree in secondary woods,  
this specimen from village

- 83 *Cyperus*  
rare, on bank above trail

84 occasional on bank above trail

153

Kusai

leaves smooth  
beneath, distichous.

shrub 1.5 m. tall, leaves  
not especially rugose;  
both staminate and  
pistillate flowers on  
same plant (see #2665, 26674)

250 m. shrub 2-4 m. tall,  
leaves dull green,  
flowers vermillion to  
scarlet.

1-5 m.

tree 3 m. tall, fruit  
on branches but not  
small twigs, red,  
sweet when ripe.  
said to have been brought from Hawaii.

tree 5 m. tall, often growing  
diffuse and tangled. "lo" bark  
for fiber, wood for outriggers.  
heads green.

flowers lavender.

Kusai is a high, rugged volcanic island with a coastal plain of coral sand, mangrove swamps, deep embayments, and a fringing reef at places becoming a barrier reef. The deep embayments and the mangrove swamps within the reef suggest a certain amount of subsidence sometime in the past. The sandy plain on the other hand suggests a slight recent uplift or else a subsidence of the sea level. There are two main mountain masses separated by a low pass. Both are surrounded by very steep slopes and cliffs, and have evidently been affected greatly by landslides.

The complexity of this terrain gives rise to a vegetation that is too complex to gain much of an idea of in a three

day visit. One day was spent in the lowlands around Lela Harbor. One is going around the east side to the north side then up Mt. Matante. The third across to the south side of Lela Harbor, up to the pass above Malem, then up Mt. Tafeyet

Strand vegetation is found on the outer edge of the coastal plain, where almost atoll conditions prevail. This sandy flat land has been thoroughly planted to coconut. Scattered strand trees such as Guettarda, Thespesia, Pandanus, etc persist along the beaches. ~~The~~ Pandanus is scattered through the plantation, allowed to persist because of the edible fruit and useful leaves. Bread-fruit trees are also found

here, though more abundantly on the lower slopes of the mountains.

The dense weed growth on the sand under the coconuts is very largely *Wedelia* and *Premna*.

These form a luxuriant solid thicket up to 4 m. high. This is usually cleared frequently but apparently replaces itself without succession.

On the east side, between the coconut strip and the foot of the mountains is an extensive mangrove swamp. Here *Sonneratia caseolaris* is the dominant plant, but *Bruquiera* of at least one species and probably 2 species of *Rhizophora* are common. *Nipa* is not rare. *Xylocarpa* is conspicuously absent. *Acrostichum aureum* was not noticed. This swamp probably

fills an old lagoon.

A fringe of mangroves surrounds the head of Lela harbor and down the south side. This also is mostly *Sonneratia*.

On the southwest side, at Malem, is a strip of coconuts along the beach and up into one or two valleys. Nothing is known of the west side.

Both at Malem and in the valley south of Lela Harbor are sizeable areas of low flat land, formerly in coconuts but cleared and used by the Japanese for planting of sweet potatoes. These are now abandoned and largely grown up to weeds. *Paspalum conjugatum*, *Jussiaea*, *Phragmites*, and some *Miscanthus japonicus*. The ground is very

hard even when moist.

The lower hills are mostly either a planted association largely coconut, <sup>bananas</sup> and breadfruit, or secondary thickets of *Hibiscus tiliaceus* and a few other species.

Oranges and limes are scattered here and there.

Occasional ridges are cleared at their lower broader ends and planted to *Manihot*, which the natives were forced to plant by the Japanese.

The plants are tall and spindly and the roots small. Around the villages is the usual assortment of weeds but with *Passiflora foetida* strangely absent.

On the wooded lower slopes *Hibiscus tiliaceus* is completely dominant but *Ficus tinctoria*,

*Laportea suraveinii*, *Pandanus*, *Coutthoria* (?), etc. are

evident. Tangled with these are, <sup>*Rubus moquianus*</sup> *Herremia peltata* and *Dioscorea bulbifera*. The latter is considered a serious pest, growing very luxuriantly here, even climbing in great profusion to the tops of coconut trees and, according to the natives, smothering them to death. In open places are thickets of *Miscanthus*, *Wedelia*, *Menyanthes*, and *Nephrolepis*, <sup>*Dypterygia*</sup> *dentata*.

The lower edges of the ~~the~~ primary forest have numbers of # 20573 + 20578 (which look much alike and may be the same), one or two species of *Elaeocarpus*, *Cyathea*, *Camphosperma*, *Couthoria* (?), etc. with abundant ferns, both terrestrial and epiphytic - ~~#~~ *Angiostelis*, *Tectaria*, *Nephrolepis*, *Dypterygia* *dentata* *parasitica*,

Piper

Adiantum, ~~etc.~~ Asplenium, nidus, ~~etc.~~ Marattia, etc. Polyscias and Ixora are common shrubs. Higher up on the steep slopes the forest becomes even wetter and more moss-covered and epiphytes more common. On the slopes of Mt. Mataute this forest is largely Elaeocarpus cyathigerus and Astronium. On Mt. Tafeyet the Elaeocarpus is less common and numerous other things enter more strongly into the composition. Ferns of multitudinous kinds are the most obvious group of plants. Marattia is very common.

Through both of these belts of forest, especially on the southern group of mountains, landslides scars are evident,

Piper  
is often  
in mud  
of the  
ridges.

filled with Wedelia, ~~etc.~~ Nephrolepis and Gleichenia sp. where recent and with Hibiscus tiliaceus where older.

The top ridges, especially of Mt. Mataute are open and covered with a deep tangle of Nephrolepis, Gleichenia, ~~etc.~~ linearis, Lycopodium cernuum, ~~etc.~~ Davallia ~~etc.~~ sp. (aff. solida), etc. with great cushions of mosses and hepatics. A few trees (Elaeocarpus) grow on these ridges and are deeply covered with moss + hepatics which support orchids and a small Davallia, as well as other ferns.

Only here does a trace of the aggregation of species characteristic of eroded areas further west make its appearance - Gleichenia, Lycopodium, Blechnum, Melastoma, Miscanthus japonica and Blechnum grow on the landslides and bar slopes lower down in secondary area.

m. end of

Aug. 23 - Jabor, Jaluit I.  
slightly elevated  
coral reef rocks and  
broken coral with  
small areas of sand.

*Blechnum pyramidatum*  
+ *Stachytarpheta dichotoma*,  
*Artocarpus altilis*,  
*Crotalaria* sp. ~~and~~ *Citrus* sp.,  
*Ficus* sp. (<sup>dentata</sup> *macrophylla*?)  
were seen by others and not  
collected.

26685 *Ipomoea alba* t. tuba  
occasional

86 *Euphorbia chamaesyce*  
rare, edge of low thicket

87 *Morinda citrifolia* L.  
occasional in thickets

88 *Allophylus timorensis*  
occasional in thickets

This area has been  
almost completely  
denuded by Japanese  
military construction  
and subsequent  
bombardment. Now  
it supports a luxuriant  
growth of *Leucova*,  
*Messerschmidia*, *Ipomoea*  
*pes-caprae*, *Vigna*  
*marina*, etc.

A large flat of exposed  
rocks supports a pure  
stand of *Pemphis*,  
vine, extensively creeping  
and climbing; flower  
white, collapsed by  
11 a.m.

much branched at  
base, leaves and  
branchlets distichous,  
sap milky, leaves pale  
beneath.

shrub 1.5 m. tall,  
flower white; ripe fruit  
white. "rin" leaves used  
medicinally, roots for blue dye.

shrub 1 m. tall, fruit green.

20089 *Polyporus*  
on rotting wood

✓ 90 *Conneratia casuarinae* <sup>Alba J. Sm.</sup>  
a few trees on tide flat  
of broken coral on lagoon  
side.

✓ 91 *Canavalia micropcarpa* <sup>cathartica Thomas</sup>  
common on ground and  
climbing over wreched  
buildings.

✓ 92 *Guettarda speciosa*  
common in thickets

✓ 92a *Allophylus*  
in thickets - tree-like shrub 3 m.  
tall, flowers white.

✓ 93 *Wedelia biflora*  
common in open places

✓ 94 ~~Lepturus~~  
94 *Lepturus repens* <sup>or septent.</sup>  
common in open places.

✓ 95 *Eragrostis amabilis*  
occasional, this in  
a ~~box~~ box of earth.

✓ 96 *Cordia subcordata*  
rare in thickets

✓ 97 *Cyperus pygmaeus*  
rare, <sup>one tuft</sup> in box of earth

bright orange-vermillion,  
the color running and  
staining papers when wet.

grailed tree 4 m. tall,  
spreading 8-10 m.  
leaves fleshy. young  
fruits very scarce.  
extensive vine,  
flowers bright  
magenta.

shrub 1 m. tall,  
others taller; flowers  
white, fragrant,  
all shed by ~~10:30~~  
fruit immature. "root"  
semi-prostrate, ~~scious~~  
herb, flowers yellow.  
"merkuee" eaten by Japanese.

✓ tufts with runners,  
forming a loose  
mat.

sterile shrub 2 m. tall  
breads white

✓ 26698 *Euphorbia characias*  
rare on broken coral

✓ 99 *Messerschmidia argentea*  
common everywhere

✓ 26700 *Triumfetta procumbens*  
common in open places

✓ 01 *Eleusine indica* (L.) Gaertn.  
occasional around  
wrecked buildings.

✓ 02 *Leucocoma frutescens* (Mill.) K. &  
common everywhere

03 *Cucurbita pepo*?  
persisting from cultivation

✓ 04 *Digitaria pruriens* var. *microchaeta*  
rare, one small patch seen

✓ 05 *Sorghum bicolor*  
persisting from cultivation

✓ 06 *Cyperus stappae* <sup>javanicus</sup>  
occasional

✓ 07 *Nicotiana tabacum*  
occasional, persisting  
from cultivation

almost prostrate,  
leaves distichous,  
pale beneath.

shrub 2.5 m. tall,  
leaves fleshy, silvery  
green, flowers white.  
"kinn" used medicinally, wood for canes.

prostrate, flowers  
yellow.

shrub 3 m. tall (seen  
up to 4 or 5 m.); flowers  
white, fruit white,  
fleshy. "kinal" used medicinally.

prostrate, extensive;  
~~flow~~ leaves with  
gray spots; flowers  
orange.  
"mif" (probably a generic  
word for grass)

caespitose, leaves gray.

leafy herb 1 m. tall,  
fls. pink.

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1946 Marshall Is.

20708 *Portulaca oleracea*  
common in open places✓ 9 *Ipomoea per-capitae*  
abundant everywhere✓ 10 *Physalis angulata* L.  
occasional11 *Pemphis acidula*  
common on coral  
rocks on lagoon side12 *Cendruss echinatus*  
common locally✓ 13 *Thunarea involuta*  
local in open places14 *Euphorbia thymifolia* <sup>var. *strigata* L.</sup>  
local around buildings✓ 15 *Fimbristylis cymosa*  
common in open places16 *Fleurysta nuderalis*  
local on open coral rubble

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Palau Atoll

fleshy, prostrate,  
flowers yellow, less  
than 1 cm. across,  
stamens 8-11.prostrate, extensive,  
climbing over old  
wreckage, flower  
purple, stamens  
white, anthers  
straight, stigmas  
capitate.herb, much branched,  
flower greenish yellow,  
fruit immature.small trees 5 m. tall,  
flowers white.

tufts "lukaluki"

prostrate, forming a  
thin mat.

prostrate, purple

tufts, roots with  
pyrethrum-like color.  
"pereleg man" roots used medicinally.

stems red, fleshy.

"non butakut" used for  
medicine, eaten by Japanese.

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1946 Marshall Is.

✓ 16717 *Euphorbia hirta*  
common locally

✓ 18 *Pilea microphylla*  
local in crevices in  
coral rubble

✓ 19 *Phyllanthus amarus* Schum. & Th.  
*misuri*  
local

Aug. 23 Plants collected in Jabor  
by R. Lyman

✓ 1 *Cordyline terminalis*  
large leaved form.

✓ 2 *Cordyline terminalis*  
narrow leaved with  
purple margin

✓ 3 *Canna*  
yellow flower  
with red spots

✓ 4 *Cycas circinalis*

✓ 5 *Polyscias fruticosa*

✓ 6 *Hansevieria guineensis* (Jacq.)  
leaves fleshy, gray-mottled

✓ 7 *Casuarina equisetifolia*

✓ 8 *Leucaena glauca*

✓ 9 *Polyscias guilfoylei*

✓ 10 *Scindapsus aureus*  
var. leaves variegated  
with yellow.

Jaluit atoll  
stem arching.  
fleshy.

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det. G. L.  
Webster, 1955

Wild.

Immu

Aug. 23 - (Omrodj) Islet,  
Jaluit Atoll  
entirely planted to  
coconuts except for a  
couple of small mangrove  
~~swamps~~ depressions.

✓ 2720 Village occupies part of low  
*Hibiscus tiliaceus* L.  
lagoon beach in village

✓ 21 *Pisonia grandis*  
in village, rare.

✓ 22 *Cassytha filiformis* L.  
near lagoon beach  
in open spaces,  
parasitic on grasses

*samoensis* Rob.

✓ 23 *Terminalia littoralis*  
rare on inner beach

✓ 24 *Cordia subcordata*  
common along inner beach

✓ 25 *Calophyllum inophyllum*  
occasional along inner beach

*Musa sapientum* = "kebran"  
*Cocos nucifera* (tree) = "ni"  
*Pandanus* = "lop"

"small tree, leaves  
very chlorotic "loo" (pronounced  
law). fiber used for cordage.

"small tree, sterile  
"kangal"  
leafless, f. stems  
yellow, forming  
a carpet on ground  
"kanen"

(plant even sends  
haustoria into itself -  
fruits, other stems, etc.)

"small tree with  
very young fruit  
"ekun"

tree 3 m. tall, others  
larger; flower deep orange;  
"Kono" wood used for  
houses, canoes, stakes for  
brushing coconuts.

tree 3 m. tall, sterile "luej"  
wood used for houses and  
boats.

174 1946 Marshall Is.

✓ 26726 *Plumeria rubra* L.  
in dooryard

✓ 27 *Asclepias curassavica* L.  
near house

✓ 28 *Celosia argentea* L.  
near house

✓ 29 *Pseuderanthemum atropurpureum*  
<sup>carruthersii</sup> var.  
near house

✓ 30 ~~Staunus~~ *Nerium oleander* L.  
near house

✓ 31 *Centella asiatica*

grassy place under palms.

✓ 32 *Premna obtusifolia* R. Br.

rare near houses

✓ 33 *Clerodendron inerme*

common locally

"ulij" used medicinally

✓ 34 *Peperomia pinnatifida* DC.

common at north end of  
islet on ~~islet~~ broken coral  
under coconuts

✓ 35 *Ochnosia parviflora* <sup>oppositifolia</sup>  
common at north end of  
island

Jaluit Atoll

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small tree, milky sap  
abundant; flowers  
white, slightly reddish  
outside, yellow toward  
center within, fragrant.

flowers with red  
corolla, yellow corona.

erect ~~or~~ reddish herb,  
m. tall, fls. rose pink.

shrub 3 m. tall, leaves  
deep purple, buds  
deep crimson-purple  
"diros" (tea rose??)

shrub 2 m. tall,

flowers white "oleanda"  
prostrate, running.

"naribō" used medicinally.  
sterile shrub 2 m. tall

"kai" used medicinally.

extensive sprawling shrub,  
flowers white, buds  
~~purple~~ tipped, stamens  
and style purple.

fleshy "rebij nege"  
used medicinally.

small trees; flowers  
white, corolla lobes recurved  
"kish-pai" seed eaten.

26736 *Barringtonia asiatica*  
edge of mangrove depression

37 *Nephrolepis hirsutula* <sup>Forst f.</sup>  
one clump seen

38 *Bruguiera gymnorhiza*  
common around ponds  
in coral rock - not muddy.

39 *Vigna marina*  
common everywhere

40 *Asplenium nidus*  
common, especially on  
bases of coconuts and stumps

48 *Nephrolepis acutifolia* (Sw.) Christ  
common on coconut stumps  
and coral rock

42 *Lumnitzera littorea* (Jack) Vight  
a few trees in a small  
depression

43 *Triumfetta procumbens*  
common

44 *Uncaria glauca*  
on bases of coconut trees

tree 10 m. tall "woop"  
used for fish poison.

clump around old  
coconut stump. "iri"  
small tree; calyx and  
hypanthium red.

"chung" or "jung"  
vine, extensively  
creeping; flowers yellow  
"merkenen jojo"  
used medicinally.

rosettes of ascending  
ponds. "kantep" young  
ponds used medicinally.  
ponds erect "iri" (not  
distinguished by informant  
from 26737).

small tree, leaves rather  
thick, glossy, flowers  
scarlet, fruit green  
"kimeme" wood used for canoes.

prostrate, extensive,  
flowers yellow "atat"  
~~use~~ bark fiber used  
to weave with Pandanus  
and Hibiscus to give a  
yellow, brown, a greenish color.  
deep light green cushion  
"lum en mi"

✓ 45 *Vittaria inaurata*  
on tree trunks, not common

✓ 46 *Polyodium scolopendrium*<sup>a</sup>  
terrestrial, common

✓ 47 *Tacca leontopetaloides* L.  
planted under coconut  
trees in sand.

✓ 48 *Ipomoea batatas*  
cultivated, one tiny patch seen.

✓ 49 *Crinum asiaticum*?  
cultivated

✓ 50 *Vernonia cinerea*  
in village

✓ 51 *Pteris tripartita*  
in village, one plant seen

✓ 52 *Bryophyllum calycinum*  
common weed in under  
coconuts.  
Kalanchoe pinnata

✓ 53 *Pipturus argenteus*  
common locally

✓ 54 *Mirabilis jalapa* L.  
around houses

✓ 55 *Oximum suaveolens* L.  
around houses

frond, erect from  
creeping rhizome.

— erect herb, scape  
1 m. tall "moh moh"  
tuber eaten.

— sterile, chlorotic looking  
"potato" roots eaten.

— sterile rosettes of  
leaves about 1 m. long.  
"kiep"

— flowers purple.

rhizome short, erect,  
fronds at first 3-divided,  
the central division simple,  
the lateral ones 3-fid again.  
"iiri"

— sterile; leaves fleshy;  
said to have been  
brought in by Germans.

— shrub 3 m. tall; fruit  
white, fleshy; "arne"  
the inner bark used to make  
fish lines.

— flowers red. "ulij"

very aromatic herb "katru"

✓ 26756 *Alocasia macrorhiza*  
common everywhere

✓ 57 *Polypodium scolopendrium*  
common on coconut stumps

✓ 58 *Artocarpus altilis*  
common everywhere  
mariannensis Trin.

Aug. 24 - same

✓ 59 *Pandanus tectorius*  
interior of island

✓ 60 *Ceiba pentandra*  
one scrawny tree seen

✓ 61 *Fleurya uderalis*  
common everywhere

✓ 62 *Hymenocallis littoralis*  
planted

✓ 63 *Terminalia catappa*.  
one small plant seen

sometimes caulescent,  
leaves up to 2 m. tall,  
ed. "wot" corn  
eaten cooked, though  
it burns mouth.

rhizome creeping,  
fronde erect "kino"  
used medicinally.

low twig on large tree  
"me" fruit eaten.  
(several varieties known,  
including one with seeds,  
which are eaten).

tree 5 m. tall, heads  
of fruit large, cylindric  
"bop" var. "shon men"  
fruit eaten.

tree 8 m. tall, very  
chlorotic "bulik"  
stems <sup>and petiole</sup> red, leaves  
large in shady place.  
"nen küt (ā) küt"

erect, about 1 m. tall,  
flowers white, leaves  
erect. "krieb" a "krieb"  
~~sapling~~ <sup>growing</sup> 2 m. tall, sterile.  
"kotel" seed eaten,  
wood used for canoes.

✓ 20764 *Canica papaya*  
common

✓ 65 *Ipomoea* <sup>littoralis</sup> *gracilis*  
locally abundant

✓ 66 *Pandanus tectorius*  
along outer beach

✓ 67 *Adenostemma lavenia*  
in shade in interior

✓ 68 *Hedychotis biflora*  
shady ground, local

✓ 69 *Caesalpinia pulcherrima* (L.) Sw.  
planted in yard

✓ 70 *Xanthosoma sagittifolium*  
planted

Aug. 24 Mejat' to Islet,  
~~Koror~~ Jaluit Atoll

planted to coconuts  
except mangrove  
depressions.

erect, unbranched, 2.5  
m. tall; flowers cream  
white, "kinapu"

— vine, flowers purple;  
said to be introduced from Nape.  
tree 6 m. tall.  
"bop" var. "erwan".  
"erwan" = tree; maa = leaf  
"bis" = fruit.  
fruit not eaten, leaves  
not used for mats.  
flowers white.  
"märuks"

— prostrate, flowers  
white, corolla tube  
swollen. "Klauso"  
used medicinally.  
shrub 1.5 m. tall,  
flowers red. "emenawa"  
caulescent, sterile,  
leaves dull green,  
white beneath  
"katak".

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1946

Marshall Is.

*mariannensis* Trin.

✓ 76771 *Artocarpus altilis*  
inner beach, but  
mostly in interior

✓ 72 *Nephrolepis antiqua*  
epiphytic on trees in  
mangrove depression

✓ 73 *Allophylus timorensis*  
common on pebble ridge  
around mangrove  
depression

✓ 74 *Intsia bijuga*  
small clumps on edge of  
mangrove depression

✓ 75 *Musa nana*  
planted

✓ 76 *figs* *fallax*  
in yard

✓ 77 *Musa sapientum*  
planted

✓ 78 *Hernandia sonora* L.  
inner beach, rare

✓ 79 *Pandanus tectorius*  
common

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Palau atoll

tree 10 m. tall, others  
much taller "me"  
pendent

tree 5 m. tall, 1 dm. thick,  
fls. white, fruit red.  
(~~one~~ specimens with  
flowers from a small  
tree under large one)

tree with smooth bark  
10 m. tall, sterile,  
~~old~~ very battered  
in appearance "kubuk"  
fruiting plant 1 m. tall.

shrub 1 m. tall, flowers  
orange, without red center.  
plant 4 m. tall "kebran"

tree 10 m. tall. "bingbing"  
wood used for canoes,  
houses, etc.

tree 7 m. tall, fruiting  
heads cylindric, large  
"bop" var "lo arne"  
fruit eaten.

✓ 26730 *Crinum asiaticum*  
planted

✓ 31 *Polyscias ticochelata*  
planted

✓ 32 *Pseuderanthemum eldorado*  
<sup>carthagenii</sup>  
planted, common

✓ 33 ~~*festuca*~~ *Sophora tomentosa*  
rare, ~~common~~.

✓ 34 *Hedychotis biflora*  
local

✓ 35 *Nerium indicum* Mill.  
planted

✓ 36 *Polyscias scutellaria*  
planted, common

✓ 37 *Polyscias fruticosa*  
planted

meals 0.9 m. tall, rosette  
of leaves 1-1.5 m. long,  
scape 1.5 m. tall, flowers  
white with purple  
stamens and style "kib"  
shrub, branches erect,  
2 m. tall; variegated,  
sterile.

shrub 3 m. tall,  
flowers white with  
crimson-purple spots  
near center, lobes  
somewhat reflexed,  
one pointing down, 2  
just below horizontal,  
2 erect, more or less  
overlapping.

large clump of shrubs  
2-3 m. tall. "kil'li"

prostrate, flowers  
white.

shrub 5 m. tall; flowers  
a beautiful rose pink,  
fragrant.

erect shrub sterile,  
leaves glossy, obovate.

erect shrub 2.5 m. tall,  
flowers bronze green,  
fruit gray.

26738 *Calophyllum inophyllum*  
inner beach, common  
89 *Premna diffusifolia* R.Br.  
occasional

Fundamentally, at present, the vegetation of the islets of Jaluit atoll examined (except Jaluit Islet) ~~is~~ is a fairly complete coconut planting, with in its central part, considerable admixture of breadfruit, and a second storey of *Pandanus* scattered commonly through it, more abundantly toward outer beach. *Scaevola* and *Messerschmidia* line the outer beach, *Cordia*, *Calophyllum* etc. the inner.

*Alocasia* grows commonly in places. *Tacca* is abundant in many extensive localities. *Papaya* is common around

tree 1-2 m. tall, flowers white with yellow  
shrub 4 m. tall.

*Pandanus* <sup>purple</sup> vine <sup>abundant</sup> villages and dwellings. Other plants are cultivated on a ~~very~~ small scale in gardens around houses.

Ornamentals, such as *Pseuderanthemum*, various *Polyscias*, *Crinum*, etc. are common along trails, often indicating graves and former house sites.

*Hibiscus tiliaceus* is occasional but does not seem to do well.

Undergrowth varies from place to place, but *Wedelia* is abundant in many places. Grasses such as *Digitaria*, *Thunarea*, etc. are locally abundant. *Fleurya* and *Bryophyllum* are common,

*Thunbergia procumbens* and *Vigna marina* are widespread and abundant.

*Polyodium scolopendria* is everywhere. *Peperomia* is found locally. *Cassytha* covers some areas, especially toward inner beaches.

Nowhere except in *Wedelia* patches is undergrowth thick enough to obstruct walking.

*Pteris*, *Asplenium nidus*, *Nephrolepis* and a *Nephrolepis* like fern are occasional to common, either terrestrial or occasionally epiphytic. Mosses are on ground and on base of tree trunks.

The islands are narrow enough so that most of the substratum is coral gravel or broken coral. There is little sand or soil.

Here and there are depressions with water and mangroves mostly *Bruguiera*. These are rock-bottomed

and the water is clear. There is seldom mud, apparently a result of this. ~~The~~ *Pemphis acidula* normally of the rocky reef rock in lagoon beaches, is very common around mangrove depressions.

The water in these depressions is salty but slightly less so than sea water. It is inhabited by small gray to red ~~stage~~ atigid shrimps similar to those of Puna, Hawaii.

Jaluit Islet has been denuded by military construction and bombardment. It is now covered by a luxuriant growth of *Isocoma*, *Messerschmidia*, *I. promoea* *per-capitae*, <sup>*Wedelia*</sup> *Vigna marina* and a mixture of weeds. In a few open places *Lepturus* is dominant. Various cultivated species persist

"sub  
perenn."

especially around  
military installations.

On the inner beach in  
one place is an extensive <sup>slightly</sup>  
raised reef-rock flat  
covered by an almost  
pure stand of *Pemphis*.  
*Sonneratia* is rare  
on a more extreme exposure  
of this same flat, covered  
by high tide.

Obviously, as far as  
simple re-vegetation  
goes, all these denuded  
islands ask is to be  
let alone. They will  
re-vegetate even faster  
than is wanted.

The *Pandanus* problem  
is difficult. In my  
mind, one species is  
represented, with large  
phalanges in usually  
large heads, tending to  
be cylindric. The  
details of phalange  
composition and modelling,  
as well as edibility,

and flava, vary  
markedly. Size of  
head also varies. Length  
and weaving quality of  
leaves also varies.

Natives recognize  
many varieties, giving  
them names as varieties of  
"bop" such as

"lo arne"  
"joibib"  
"lejak noi"  
"shon men"  
"utetet"  
"dabotin"  
"julub bar"  
"erwan" (one form of this <sup>is</sup> ~~is~~ <sup>markedly</sup>)  
"un ma" (small

plants, planted for leaves  
for weaving, plants in tall,  
no fruit seen) ~~are~~

These are almost indis-  
tinguishable yet the natives  
recognize them readily.  
The general appearance is  
of a randomly varying  
population, but close study  
might delimit a finite  
number of recurring variants.

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woodpecker  
downy woodpecker  
downy woodpecker  
downy woodpecker  
downy woodpecker  
downy woodpecker  
downy woodpecker

Bashak =  
Cyrtosperma  
corn eaten

mumum ✓  
(ananas.) ✓

tapiroga ✓  
Japs made them  
plant for soldiers  
to eat.

Lumnitzera  
"waingal"

Xylocarpus  
"pulok"

ka = Camposperma

loa - need ✓

pala - Merrenia

asing sing - Ipomoea

Mt. Tabeyet

eastermost  
high peak  
in range  
culminating  
in Mt. Crozier.

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